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Lecture.

ANEURISMS.

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Gentlemen: During our last lecture we aimed to depict some of the textural changes in blood-vessels which predispose the structure to dilatation; in other words, described those pathological conditions which, by disintegration or proliferation of some of the lower elements of the blood-vessels, interfere with the normal adhesion and cohesion of the parts, when another element was added, that is, increased arterial tension, intravascular pressure. We are now prepared from this standpoint to study one of the pathological conditions of the arteries characterized by an increased lumen of a vessel, a condition which we term "aneurism."

I would describe an aneurism as being a swelling containing fluid blood, and in communication with the lumen of an artery, in contradistiction to venous dilatation, where we may have an analagous pathological condition of the vessel from the same cause, resulting in an increased lumen, but the increased lumen taking place at the expense of the entire vascular wall; in other words, the creation of a symmetrical swelling containing venous blood within the normal venous channel.

We shall speak of dilatation of veins in connection with aneurism, but our definition will still hold true, from the fact that the contents of the venous tumor of the dilated vein is still in communication with the open lumen of an artery. By an aneurism, we mean a swelling, not a tumor, containing fluid blood either by an artery or arterial and venous blood mixed, but that this swelling must be in communication with the lumen of an artery.

We shall first describe the different varieties, and will call your attention in the first place to the three distinct varieties as recognized by most authorities. First, the so-called *aneurysma vera* or *true aneurism*, meaning a dilatation of the arterial walls without sacrificing any of its tunics, simply a distension of the arterial tube either as the result of pre-existing degeneration in the vessel, or of localized, increased, intravascular pressure; so that by a true aneurism we mean a sac which, on dissection, presents all the anatomical constituents of the tunics—the intima, media, and adventitia—dilatation having taken place, not at the expense of a loss of resistance of any particular tunic, but a symmetrical dilatation. The next variety is the *aneurysma spurium* or *false aneurism*. By this we mean an aneurism which does not consist in simply dilatation of all the pre-existing tunics, but where the sac is built up of additional structures and elements. Porta claimed that there was no such thing as a true aneurism, and believed that in order to have distension of the arterial tube, we must have destruction of one or more of its tunics. We recognize by aneurysma spurium an aneurism whose sac is made up either entirely of new tissues, or there is so little of the tissue remaining as to be ineffective in resisting intra-arterial ten-

sion. The true meaning of the word is an aneurism as it occurs after traumatism, consequently, aneurysma spurium and traumatic aneurism may be considered synonymous terms. In a traumatic aneurism we have an artificial opening into the arterial tube, the result of a stab-wound, the contents of the artery extravasating into the surrounding tissue, forming an artificial wall, consisting of perivascular connective-tissue, condensed by compression, the new space containing fluid blood, primarily the result of an effusion from the arterial wound, secondary changes in the sac increasing the number of constituents, and when the disease has advanced, results, perhaps, in a sac which may resemble the normal tunics of the vessel—a sac lined by the intima, the result of tissue-proliferation in the new sac; in other words, a granulation process from pre-existing, mature connective-tissue, resulting, first, in embryonal tissue, and finally transformed into endothelial cells. The sac of a traumatic aneurism by the coagulation of blood, mural thrombi serving as a nidus from the tissue from the sac, produces an intravascular thrombus, a cicatricial contraction, which results in an additional element of the aneurism.

The third variety is the *aneurysma mixtum.* We understand by this an aneurism whose sac may be composed of one or more of the tunics of the vessel, the result of degeneration either by sclerosis or atheroma, following endarteritis or mesarteritis, resulting in a circumscribed destruction of the arterial wall, the process being limited to the loss of resistance, the remaining vascular tunic giving away to the normal intravascular pressure, resulting in distension, in the formation of a sac—the true sacculated aneurism.

It is the first and third variety that are usually the result of pre-existing disease of the arterial tunics. A true aneurism affects the segment of the tube, results in a diminution of the resistance on the part of the vascular wall by degeneration of the intima or or media, resulting in a fusiform, elongated dilatation of the artery—the so-called *fusiforma aneurysma.* Another (third) variety is the result of circumscribed patches, not of the entire lumen of the vessel, but localized, circumscribed patches giving rise to a loss of resistance corresponding to the area of degeneration, a diminution of the resistance over a circumscribed spot, so to speak, a dilatation of the vessel at the expense of the remaining tunic—the adventitia—resulting ing in a distension, localized, symmetrical. The fusiform variety is that which results in a distension of all pre-existing tunics, constituting a symmetrical dilatation of the artery at a particular point, resulting in a loss of resistance of all the tunics, the arterial tension being more mild in the centre, of course; the primary seat of degeneration, having taken place centrally, advances in a peripheral and proximal direction, resulting in the greatest amount of distention at that particular point. As the disease advances, diminishing resistance gradually, we have a shooting of atheromatous to healthy tissue, consequently this form always assumes a fusiform shape. This form being the result of equal pressure on two sides, very rarely results in the formation of mural thrombi in contradistinction to the sacculated variety. It is simply a symmetrical distention, an increase of the lumen in all directions.

A racemose aneurism is that which results in a symmetrical dilatation of the principal artery, with consecutive dilatation of its contributory branches.

We find this disease occasionally about the hand, one of the principal arteries of the finger undergoing a change, the result of a paralytic affection of the nerves supplying that portion of the vessel, or what is more likely, a congenital error of development, either by the original size of the vessel, or by a predominance of tissue in the vessel which predisposes it to dilatation; that is, a misproportion of the histological elements of which the vessel is built up, an increase in loose connective tissue with a defective remained substance between the endothelial cells lining the intima. We have dilatation not only of the entire artery, but of the branches which originate from the vessel. In contradistinction to an angioma, a racemose aneurism increases in size both in a peripheral direction by dilatation in the same manner as a true aneurism, either by a weakening of the vessel wall, by paresis, or by degeneration of the essential elements calculated to resist intra-arterial pressure, resulting in a symmetrical dilatation. Angioma, on the other hand, is a true tumor from a matrix of tissue resulting not only in dilatation of pre-existing spaces, but more particularly in the formation of new vessels. In a racemose aneurism the process is limited to pre-existing channels, the increase in size being in the same ratio as the increase of the principal artery and its main branches.

The circumscribed and true aneurism, in contradistinction to the diffused variety, means, as I have previously stated, a giving away of the tunics of the vessel over a circumscribed space, consequently we miss sym-

metry; it is an asymmetrical dilatation—a sacculation, if you please. When the same process takes place by disintegration or injury of any of the pre-existing tunics, we have a so-called circumscribed aneurism, a mixed form, mixed on account of a loss of one or more tunics of the vessel. For instance, if the intima has been destroyed by sclerosis or endarteritis, the sac is built up of the two remaining tunics—media and adventitia—still remaining a sacculated aneurism.

Mesarteritis is a frequent affection, affecting primarily the media, and by extension and destruction of the middle coat, the intima and adventitia may come together. Consequently, if the principal resisting force inherent in the vessel, and as a result of mesarteritis the muscular fibres, have been destroyed, even a normal intravascular pressure at the point of destruction will result in dilatation of the remaining coats. It is a fact substantiated by post-mortem examinations that in all sacculated aneurisms the muscular fibres have been found peculiarly absent, the pre-existing muscular fibres having been destroyed by mesarteritis. Instead of a reproduction of tissue, which we naturally expect, there is a loss of resistance to counterbalance intravascular pressure, the fibres are not formed, consequently cicatricial contraction takes place between the adventitia and the intima, resulting, of course, in a corresponding diminution of resistance on the part of the vessel tunics. Microscopical examination shows that the muscular fibres which remain by intravascular pressure, become separated, remain as isolated structures in the tunics of the sac, without a tendency to reproduction.

Fusiform aneurism, the result of pathological changes in the vessel, is exceedingly rare.

The sacculated mixed variety is the most frequent of pathological aneurisms.

Another variety is the aneurysma dessicans. By this we mean an aneurism which results from laceration or destruction of one or more of the internal coats, blood extravasating between the remaining coats, dissecting, as it were, the adventitia from the media, forming a mixed aneurism, due either to pathological changes in the vessel tunics or to traumatic laceration.

The last variety, the false aneurism, is always the result of traumatism, and false from the beginning. A true aneurism may be followed by a false one, the result of pathological changes, dilatation takes place, and the sac forms as the result of intravascular pressure. If the true tunics of a sac are in such an atrophic condition as to yield to indirect vascular pressure, extravasation may take place, and we have a false and a true aneurism; but the false is that which results from laceration of all the tunics of the vessel, an extravasation of blood into the connective tissue, the formation of a sac outside of the proper tunics of the vessel. Again, if on account of an injury all of the vessel tunics have been severed, the blood extravasates into the perivascular space by compression and distention, causing a condensation of the perivascular connective tissue which serves as a sac. You would naturally ask if such a condition can be diagnosticated immediately after the injury. The rapidity with which the aneurism forms, the symptoms attending first distention or extravasation, depend upon the character of the wound. We read of cases of wounds in close proximity to the large arterial trunk. We wait for days, and sometimes for weeks, and no symptoms of aneurism appear. A few weeks later a pulsating swelling forms at the site of the wound. You will naturally ask, Why not have the immediate symptoms, if all the tunics of the vessel have been severed?—why we have not immediately extravasation of blood into the perivascular spaces? If the wound is small, a certain amount of blood extravasates, forming a small swelling which may not be appreciable at the time of injury, or even for days weeks subsequently, because by the opening in the vessel as the result of necrosis of the extravasated blood, a thrombus primarily closes the outer lumen of the opening into the vessel, growing by aggregation in a central direction, remaining and closing the wound in the artery, and for the time being preventing hemorrhage. Later, as the result of intravascular pressure, the thrombus is inadequate to co-aptate the wound in the vessel by primary union. Time elapses, cicatrization fails to take place, the thrombus not being infiltrated with proliferation elements, the connective tissue disintegrates and is removed by absorption. As soon as absorption of the thrombus occurs, hemorrhage, of course, results, and following hemorrhage we have a coagulation of fluid blood, in the perivascular tissues, an adherence of all symptoms indicative of a pulsating swelling. The blood still remaining fluid for a considerable time, the coagulation depends, to a certain extent, upon the rapidity of effusion, the area of surface exposed to the circulating fluid, and more particularly upon the size of the opening of the vessel; in

other words, the more the circulation in the perivascular spaces corresponds to the intravascular circulation, the less probability will there be that the blood will coagulate. I mean the rapidity of the current in the false aneurism. If, on account of a predisposition on the part of the connective tissue around the vessel, extravasation occurs extensively at a distance from the wound, and the opening in the vessel is small, the return of blood into the vessel imperfect, coagulation will take place rapidly and extensively. If, on the other hand, the opening is large, and on account of a deposit of connective tissue around the vessel extravasation is difficult, the coagulating process will be correspondingly slow, so that in the majority of cases when extravasation does not follow immediately the infliction of a wound, we may take it for granted that primarily the artery was closed by a thrombus, and the thrombus remained intact; in other words, secondary hemorrhage resulted in the formation of a traumatic aneurism. The remaining form of aneurism may not be the result of a loss of tunics, but of an abnormal circulation between the artery and veins. They are the so-called arterio-venous aneurisms, which effect simultaneously the arteries and veins.

We recognize two principal sub-varieties, the varicose aneurism and the aneurismal varix. By a varicose aneurism we mean one whose sac is located between an artery and vein, as in cases of a sacculated aneurism in close proximity to the vein. If, as the result of atrophic changes from pressure, we have a loss of continuity of the sac of the aneurism, and a corresponding loss to the vein, and consequently an escape of the true aneurism by loss of substance into the vein, we have an aneurismal varix. If we should have a rupture of the aneurismal sac, with an extravasation of blood between the vein and the aneurism, the sac forms between the vein and aneurism as the result of secondary changes from compression on part of the new sac, a destruction of the vein will occur, and a rupture of the vessels of the aneurism in the vein results. An aneurismal varix is that which is produced by an admixture of arterial with venous blood by a direct communication between the artery and the vein, without the interposition of the sac between the vessel tunics. A varicose vein is the result of increased intravenous tension when arterial blood is forced directly into the vein. A pathological aneurism is the result of a diminution of resistance on the part of the tunics of the vessels themselves, of inflammatory changes, or of degeneration of the vessel tunics. A pathological aneurism found in the aged is almost always the result of antecedent degenerative changes affecting primarily the intima, and secondly, the media—a fatty degeneration of the endothelial cells extending from the endothelial lining in a peripheral direction. The disease occurs in patches, circumscribed, well-defined; dilatation takes place at these patches, and results in a distention of the weakened tunics of the vessels in a symmetrical manner—in other words, in a sacculated pathological aneurism. Inflammation, on the other hand, affecting in preference younger individuals, originating in the media, extending from the entire vessel tunic, affecting the entire circumference of the vessel over a limited space, extending in a peripheral and proximal direction, but affecting, at the same time, the entire diameter of the tube, giving rise to a weakening of the vessel wall in all directions, with a yielding on the part of the vessel wall, results in a fusiform aneurism.

Mesarteritis is usually found in persons predisposed to this particular pathological change.

A pathological aneurism of the sacculated variety indicates previous disintegration of one or more of the tunics of the vessel, which by diminishing resistance predisposes the aneurism to dilatation from the normal intravascular pressure. Again, aneurism resulting from paresis of the vessel tunics from imperfect innervation, will result in a yielding of the vessel wall corresponding to the area of paresis.

Traumatic aneurism means an extravasation of blood into the perivascular tissues and the formation of a sac by connective tissue and coagula, recognized early, as the recent observations of Professor Wall prove, by changes in the circulation at the point of injury. If, for instance, we have as a result of gun-shot wound injury of the large arterial trunk, and still have absence of all the symptoms of traumatic aneurism, and we desire to ascertain whether a loss of continuity has taken place at the site of injury, our best method to determine this is to resort to auscultation. Wall has observed that when peripheral symptoms indicate injury to the vessel, if we apply the stethoscope we can satisfy ourselves of a loss of continuity of the intima by a blowing or rasping sound. Auscultation should always be resorted to in suspected cases of injury to large arterial trunks, being careful, however, not to mistake an abnormal sound by compressing the vessel. We can always hear a bruiting if we compress the vessel. This fact was firmly

impressed upon my mind a short time ago when a young physician desired me to examine a man suffering from a subclavian aneurism. He was satisfied he heard a bruiting repeatedly. I applied the stethoscope, but failed to recognize any abnormal sound. Pressing the stethoscope firmly upon the vessel he said he could hear it again. I lifted the instrument and the abnormal sound disappeared. I listened again, but heard no bruiting; but pressing the stethoscope upon the artery firmly I heard a soft murmur—so you must be careful not to compress the vessel. The sound is entirely different when the intima has been ruptured; it is a rasping sound. With such conditions presenting themselves, be careful to reason by comparison, to examine the vessel on the opposite side to detect the difference, satisfying yourself that by compression of the vessel you simply elicit a soft sound, while the earliest symptoms of traumatic aneurism cause a loss of continuity of the intima, resulting in a roughening of the lining of the vessel, giving rise to a rough sound.

In considering predisposing causes, more particularly in traumatic aneurism, it is important to remember the location of the vessel. Of 561 cases reported by Crisp, we find in 308 the aneurisms were located in regions amenable to operative interference. Again, of the 308 cases of external aneurism, he found 137 were located in the popliteal spaces, showing conclusively that arteries which are most exposed furnish the largest percentage. Of 561 cases, the ophthalmic artery, being so well protected, furnished only one case. It is not only the exposure to direct violence which predisposes to aneurism, but it is the particular location and surroundings of the vessel. A vessel surrounded by firm, muscular bundles, giving adequate lateral support, is less likely to furnish a case of aneurism; but a vessel surrounded by less adipose tissue is more liable to yield to abnormal intravascular pressure; consequently, vessels located in the popliteal spaces, surrounded by a bed of adipose tissue, are the vessels most likely, under exciting causes, to result in dilatation. An artery which is so liable to undergo a relative change between adjacent tissues is predisposed to aneurism, consequently, as a rule, they are located at points corresponding to flexion and extension. For instance, aneurisms about the hip-joint, in Scarpa's spaces, about the popliteal artery, and about the bend of the elbow. An important element in considering the influence of traumatism as it affects the arterial tunics is the peripheral or proximal point of fixation. As long as an artery by changing its relative position by flexion and extension remains unfixed, loses all virtue of its elasticity, its tunics are but little affected, but if it remains fixed, and by hyper-flexion and hyper-extension the vessel is extended, it constitutes a most important predisposing cause.

The largest percentage of pathological aneurisms is furnished by the aged from the well-known cause of atheromatous degeneration and sclerosis—causes inherent in the patient and the vessel itself, so that the least exciting cause in the nature of traumatism, determining an increased afflux of blood to a part, causes intravascular pressure, which, by coming in contact with the weakened vessel, will result in dilatation. Traumatic aneurism is most frequently met with in people from thirty to forty years of age, in people in the prime of life, who by the nature of their occupation are predisposed to injuries, consequently, occupation acts as a predisposing cause. Statistics tend to show that aneurism, as a rule, occurs with the greatest frequency in large cities—most frequently in England and Holland—and more especially in people who are engaged in carloading, ship-loading, etc. Gross has made the observation that in America aneurism is an exceedingly rare affection; rare because our nation is young, because the atheromatous degeneration as the result of imperfect health, of unfavorable sanitary or hygienic conditions, is still in its infancy. In this country most cases of aneurism seem to occur in New York.

In the ætiology let us consider the effects of sclerosis as affecting primarily the intima, producing an increased proliferation of tissue elements, unattended by an increase of physiological function. The process of proliferation is invariably followed by degeneration—a sclerosis resulting in a thickening of the arterial tunics, indicating the extent to which degeneration has proceeded—a sclerosis, first, diminishing the calibre of the tube by central proliferation, extending in a peripheral direction, invading gradually the tissues, infiltrating the media, displacing pre-existing normal muscular fibres by a neoplasm, followed subsequently by degeneration of the products of proliferation, a condition which precedes and excites atheroma.

In describing the changes in the sac, I will call your attention to pressure atrophy not only as it involves the sac itself by over-extension on the part of increased intravascular pressure, but pressure atrophy as it affects surrounding tissue. The sac of an

aneurism will become distended in proportion to its inability to maintain the necessary amount of resistance; consequently, if an artery is deeply located, surrounded by unyielding tissue, the danger from over-extension and rupture of the sac is diminished in proportion to the amount of lateral support furnished. If the vessel is situated superficially with inadequate lateral support by distention, there is greater risk of rupture. Again, as far as the sac itself is concerned, if, as the result of a mural thrombus, it is strengthened, and the mural thrombus serves as a nidus for proliferation tissue, the amount of resistance on the part of the sac increases with the amount of proximal cicatricial tissue formed in the coagulum as a result of infiltration of the thrombus by proliferation from mature connective tissue surrounding the sac; consequently, it is that form of aneurism most likely to give rise to early atrophy, where coagulation fails to take place. An aneurism may remain in a latent condition for an indefinite period, if the normal process of regeneration of tissue in the interior of the sac is not interfered with, but favored by the formation of a mural thrombus. If the sac furnishes conditions unfavorable to the formation of a mural thrombus, dilatation of the vessel is more likely to take place early, if no firm muscular or bony support interferes with it. Extrinsic atrophy is the result of atrophy outside of the sac, and may affect all of the tissues without regard to their anatomical constituents. In aneurism of the thoracic aorta we may have all the evidences on post-mortem examination of so-called caries the result of pressure atrophy, resulting in osteoporosis, following which we may have degeneration of the bone constituents, and their removal by absorption. Coagulation in a sac, like in any other condition, means necrosis of the blood. It is not influenced by the condition of the internal surface of the sac, but by the amount of intravascular pressure. It is a well known physiological fact that as long as the blood current remains intact with the normal vessel tissue, and the *vis a tergo* is not materially diminished, coagulation will fail to take place. If the circulating blood is brought in contact with a deteriorated intima, with products of degeneration, coagulation is favored correspondingly. If the intima has become degenerated as the result of endarteritis, sclerosis, or atheroma, with a normally smooth lining, a mural thrombus is determined; consequently a second factor is a diminution in the blood current, determined, to a certain extent, by the character of the sac and the opening which communicates with the vessel. If we are dealing with a narrow sacculated aneurism, interfering with the return of blood from the sac, coagulation is favored. Inflammation is a dangerous phenomenon. It may possibly result in a favorable issue, but by affecting the tissues of the sac wall itself, without giving rise to suppuration, to disintegration, and determining rupture where the aneurism is located in a large vessel, it means almost immediate death. Occasionally, however, if the inflammation remains within due bounds, and does not materially interfere with the normal constituents of the sac wall; if, on the other hand, the inflammation in a central direction is attended by a process of restoration, it may lead to a favorable issue.

The symptoms and diagnosis of aneurism are subjects of the greatest importance.

The first and one of the most reliable symptoms is pulsation—a pulsation in the swelling synchronous with the action of the heart. This is an important feature. A tumor situated upon a large vessel may and does pulsate, but the pulsations are felt only in one direction, away from the vessel. An aneurism pulsates in all directions. That is the distinctive feature. If, for instance, a malignant tumor located upon the aorta pulsates in an anterior direction, if the aorta is the seat of an aneurism, you can palpate and isolate, as it were, and the pulsations are felt in all directions alike, showing there is a symmetrical and not an asymmetrical dilatation. You must differentiate between tumors located upon a vessel and an aneurism. Always test the effect of pressure. An aneurism accessible to direct palpation becomes diminished on direct pressure. It becomes smaller because you diminish the contents of the sac. This test is especially applicable in aneurisms devoid of mural thrombi. Auscultation is resorted to, to ascertain the existence and absence of a bruiting or blowing sound heard synchronous with the heart's action. There are as many different kinds of sounds produced by aneurisms as there are aneurismal sacs. The sounds differ in proportion to the size of the sac, the rapidity of the current, and the size of the opening of communication between the vessel and the artery; but the bruiting heard synchronous with the action of the heart means an abnormal circulation at the point of auscultation, differentiated from stenosis of the vessel by its roughness.

The differential diagnosis must be carefully considered. In all tumors occurring in locations where aneurisms are likely to

develop themselves—all swellings about the region of the neck, in the popliteal spaces, in Scarpa's triangle—especially tumors which by compression of the vessel will give rise to some of the symptoms of aneurism, and more particularly cases of abscess attending an aneurism (a mistake that has been so often made). In case of an abscess accompanying an aneurism, the abscess may not be in direct communication with the aneurismal sac, but suppuration may take place outside of the sac; but opening of the abscess may determine rupture of the aneurism by diminishing the necessary lateral support, consequently if you still remain in doubt there is only one more diagnostic measure, and that it is to resort to direct exploration, and satisfy yourself as to the contents of the swelling. If you find on inserting an exploratory syringe you have entered a hollow space, and on withdrawing the piston you find pus, you must necessarily conclude that the entire swelling is made up of this purulent collection super-imposed between the skin and the aneurism. In all cases of great doubt, follow the exploratory puncture and remove the purulent collection. You will then determine how much of the swelling remains between the aneurism and the skin, which can leave no further doubt as to the presence of an aneurism.

COMMUNICATIONS.

FŒTAL PSYCHOLOGY.

BY THOS. S. SOZINSKEY, M. D., PH. D.,
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"We may fairly assume from analogy that a long time before it is born a child will have become acquainted both with pain and pleasure." Thus it is said on page 7 of an excellent little work by M. Bernard Perez, a translation of which, with a flattering introduction by the distinguished English psychologist, James Sully, has just been published, entitled "The First Three Years of Childhood." The question is not only curious, but highly interesting, especially to physicians. If an unborn child may experience both pleasurable and painful sensations, the fact should be more widely known than it seems to be. I am of the belief that medical graduates are oblivious of it. I am pretty sure I never had it brought to my attention in a lecture on obstetrics.

M. Perez is by no means a visionary theorist; on the contrary, he is a patient, sharp observer, and in full sympathy with the modern scientific school of philosophy. Mr. Sully remarks of him that he "combines considerable physiological and psychological knowledge with a practical interest in education." What he may have to say is certainly entitled to respectful attention. To be sure, he is not a physician; but it may not be doubted that a practical educationist may be quite familiar with the facts of psychology. Still, there are some statements in M. Perez's book which he would hardly have made had he been an accoucheur. Thus, says he, "there is no doubt that the moment when the infant first enters into relation with external realities is a very painful one." (Page 7.)

Of very ancient date, indeed, is the belief that unborn babies may experience pleasure and pain. There is a well-known passage of Scripture (St. Luke i. 44,) illustrative of it. It is upheld by many theologians, as well as "old ladies" and others at the present day.

Notwithstanding the positive statements of M. Perez and others, I think nearly all physicians hold that intra-uterine life is a blank mentally. Before birth, a child can experience no sensation whatever, either pleasurable or painful. There is no fœtal psychology. So the doctor is apt to think: but can he present sufficient reasons for his belief?

The question is really an open one, I believe. That an unborn child is alive is certain. It is equally certain that without nerve-centres in full play there could be no pulsation of the heart or any other action of the child's economy. No doubt all pre-natal activities may be very reasonably classed as reflex; but there is no very evident reason why the cerebral activity on which consciousness depends should not at times exist, at least toward the end of the period of gestation.

Is there no stimulus to excite consciousness in the fœtal brain? There is sufficient ground for believing that if the brain were without external connections there could be no mental activity within it; without the special senses there could be no mind. In the fœtus the senses of sight, smell, taste, and perhaps hearing, are entirely dormant, but what of touch, or rather general sensibility? May not a marked disturbance of function or impression made on the skin of a fœtus be productive of consciousness? I believe all the necessary conditions of nerves and brain are present in the later months of fœtal life. Is it reasonable, then, to declare consciousness in the fœtus, at any time, to be impossible?

But from what we know of the degree of sensibility of new-born babies, it is highly improbable that vivid consciousness is possible in the fœtus, even at term. In general, there is but little chance during intra-uterine life for decided local impressions to be made; and most of such, it may be observed, point to pain. Jars and other rude impressions are only occasionally experienced, and it is only from these likely that the production of any degree of consciousness is at all probable. During labor the pressure experienced by the head is usually sufficient to effectually preclude any possibility of consciousness being aroused; and hence birth cannot, as a rule, be a painful process.

Thus much for the present on the subject of fœtal psychology. It is of enough importance, I believe, to receive some attention from medical men.

REMOVAL OF A SPLINTER OF WOOD FROM THE ORBIT.*

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The lodgment of a large foreign body within the orbit, without inflicting damage upon the eyeball, is an accident of rare occurrence. The following case came under my care in October, 1884:

W. H., Jr., 12 years of age, was brought to me on account of an "abscess in his lower lid." His father told me that *six weeks* previous to his visit, his little boy was playing about a house in process of building, when he was struck in the face by a piece of shingle thrown obliquely from above. The boy was looking up at the time. The father pointed to an open wound in the lower lid of the left eye, just below the margin of the tarsal cartilage, and about two lines from the external orbital angle, and told me that this opening had been there since the day of the accident. The boy ceased to complain of pain after two or three days, but this wound did not close. About two weeks before the boy was brought to me, pain had returned, and with it there was considerable swelling of the lower lid. Poultices had been applied, and I found a copious discharge of pus from the original wound, and from a second small opening lower down and nearer the centre of the lid. I thought I could feel a foreign body under the conjunctiva, but the father was sure that no splinter had entered the orbit. The wound was painful, and the boy would not allow me to use a probe. The following day Dr. C. A. Cook kindly came to my office and gave bromide of ethyl for me. On passing the probe into the more external of the two wounds, I felt the splinter lying on the floor of the orbit. It was easily removed after I had enlarged the original wound, and measured a little over one inch long and one-fourth inch thick. I did not re-introduce my probe, as the effects of the ethyl had passed off by the time I had removed this piece, and I did not care to renew the anæsthesia. The wound, however, did not heal, and one week after my first operation, I re-examined the wound under ethyl. After a careful search, I found a small piece of wood less than a third of an inch long, and as thick as the end of a lead-pencil, near the internal angle of the orbit. This was removed, and the boy soon got perfectly well. I saw him last summer. There is a linear scar in the folds of skin of the lower lid, but there is no ectropion. The motions of the eye-ball are unimpaired.

Small foreign bodies, as shot, pebbles, etc., are occasionally embedded in the orbit and remain there indefinitely, doing no harm at all. Some curious cases are reported in which the foreign body remaining in the orbit, and causing no trouble, has been of great size. Soelberg Wells and Juller each mention the case, first reported by Mr. Brudenell Carter, of a hat-peg three and three-tenths inches long entering the orbit and causing no trouble for about twenty days, when it was drawn out through the orbit. The case is narrated more fully in Lawson's "Injuries to the Eye, Orbit, and Eyelids." The supposition of the surgeon who saw the case seems to have been that the head of the peg entered "the antrum of the opposite side." There was certainly not room enough for it in the orbit.

By far the more usual sequel of a foreign body entering the orbit is the occurrence of orbital cellulitis or periostititis. If the inflammation involves the deep orbital cellular tissue, there may be, after the formation of pus, protrusion of the eyeball, impairment of the motives of the eye, and optic neuritis, from the great pressure to which the nerve is subjected.

In removing the foreign body Soelberg Wells thinks that it is generally better to make an incision through the *conjunctiva* than through the skin of the lid. This is to avoid the ectropion which might follow the contraction, taking place during the healing

* Read before the Baltimore Academy of Medicine, March 16, 1886.

process. In the case I have narrated above, the two openings *already* in the skin made it unnecessary to open the conjunctiva.

Medical Societies.

THE PHILADELPHIA NEUROLOGICAL SOCIETY.

Stated meeting, February 22, 1886. The President, S. Weir-Mitchell, M. D., in the chair.

Dr. Harrison Allen read a paper on

The Headaches which are Associated Clinically with Chronic Nasal Catarrh.

Dr. Carl Seiler said that we all know that there is more or less headache associated with nasal catarrh, but how far exact lesions give rise to these exact pains, had not before been described in so many words. He thinks, with Dr. Allen, that the headache of reflex origin is largely due to pressure upon one of the surfaces of the nasal chambers. It is a curious fact, in his experience at least, that in most cases the headache of catarrh occurs on the left side of the head; while, on the other hand, obstruction of the right nostril is much more common than that of the left. He has observed several cases in which the pain was referred to the teeth and to the ear, which, as Dr. Allen has remarked, is very rare. He remembered three cases which came under his notice lately. Two of these patients complained of toothache, or rather of a peculiar pain in the upper jaw, which might be called toothache. After careful inspection by skilful dentists, the teeth were pronounced perfectly sound, and local applications for the relief of the catarrh also relieved the toothache. The third, a lady, complained of intense pain in the left external meatus, quite deeply situated. In this case applications to the meatus had no effect, but the pain was entirely relieved by local treatment directed to the nose. In neither of these three cases was headache present.

Dr. S. Solis-Cohen said that Dr. J. Solis-Cohen had once told him of a book written by a charlatan, who had discovered the connection between nasal catarrh and headache, and had been quite successful in his treatment of such cases. He had not been able to find the reference to this book, but he had come across a reference to a paper in an early number of the *American Journal of Medical Sciences*, vol. v., describing a case of periodical hemicrania relieved by the expulsion of a calculus from the nose. This is referred to only in relation to the history of the subject. As to the thesis itself, his personal experience is not extensive; but he has seen in the practice of J. Solis-Cohen a large number of cases in which headache was associated with and frequently dependent upon diseased conditions of the nasal passages, and in which relief followed the cure of the local affection. He had not before heard the subject presented in the systematized way in which Dr. Allen had treated it, and consequently was not prepared to discuss his classification.

Dr. Harrison Allen said that Dr. Seiler's remark on the connection between earache and chronic nasal catarrh interested him very much. We are not yet in possession of all the facts necessary to explain this connection. He was glad that Dr. Cohen had referred to the case of nasal calculus. The cases recorded by others were not mentioned in his paper, since he lacked the necessary time thoroughly to look up the literature. He believed that the subject of headache which is found associated with chronic nasal catarrh, has never been separately considered, nor the differential diagnosis between it and other forms of headache presented. It is well known that the majority of headaches are much alike. As stated in the paper, the brow, temporal, vertex, and occiput are so commonly involved in all headaches that patients do not distinguish between the several sources of pain, and physicians themselves may occasionally be so far misled as to fail to determine the exact cause of the ailment. In all obscure cases of distress about the head, the nasal cavities should be carefully examined.

Dr. Charles K. Mills, at the request of Dr. C. P. Henry, of the Insane Department of the Philadelphia Hospital, exhibited

A Case Presenting Cataleptoid Symptoms, the Phenomena of Automatism at Command, and of Imitation Automatism.

This patient had been recently admitted to the hospital, and no previous history had as yet been obtained. He was a middle-aged man, not unintelligent looking, and in fair physical condition. His condition and his symptoms had remained practically the same during the short time that had elapsed since admission. He remained constantly speechless, almost continually in one position, would not open his eyes, or at least not widely, would not take food unless forced, and his countenance presented a placid, but not stupid or melancholy appearance. He

had, on several occasions, assumed dramatic positions, posing and gesticulating. It had been discovered by Dr. Henry that the patient's limbs would remain where they were placed, and that he would obey orders automatically. The case had been regarded as probably one of katatonia, but in the absence of previous history it was not known whether or not he had passed through the cycle of mania, melancholia, etc., which constitutes this fully developed disease. He had had, since admission, attacks of some severity, probably, from description, hystero-epileptic in character.

Dr. Mills, in exhibiting the patient, first placed his arm, and legs, and body, and head in various positions, where they remained until he was commanded to place them in other positions. His mouth was opened, one eye was opened and the other was shut, and he so remained until ordered to close his mouth and eyes. In most of these experiments the acts performed were accompanied by remarks by Dr. Mills that the patient would do thus and so as he was directed.

Various experiments to show automatism at command were performed. Dr. Mills, for instance, remarked that the gentleman was a good violin-player, when the patient immediately proceeded to imitate a violin-player. In a similar way he took a lead-pencil, which was handed to him, and performed upon it as if it were a flute. He danced when it was asserted that he was an excellent dancer; placed his arms in a sparring position, and struck out and countered, on telling him that he was a prize-fighter; went through many of the movements of drilling as a soldier, such as "attention," "facing," "marking time," "marching," etc. He was told that he was a preacher and must preach, and immediately began to gesticulate very energetically as if delivering an earnest exhortation. He posed and performed histrionically when told that he was an actor, etc. He was given a glass of water and told that it was good wine, but refused to drink it, motioning it away from him. He was then told that it was very good tea, when he tasted it, evincing signs of pleasure. During all these performances he could not be induced to speak; his eyes remained closed, or, at least, the eyelids drooped so that they were almost entirely closed. He showed a few phenomena of imitation, as keeping time, and marching to the sound of the feet of the operator, etc.

After exhibiting these phenomena, Dr. Mills made the following remarks:

This patient is undoubtedly suffering from some form of mental disorder. The case is probably one of those which would be classed under the head of katatonia, although in the absence of a past history, I do not think that I am entirely justified in making this diagnosis. In the affection known as katatonia, first described by Kahlbaum, and in this country discussed by Hammond, Spitzka, and others, but most ably and fully by Kiernan, alternate periods of mania, melancholia, and, it is said, cataleptoid states, are present.

Taking the patient as we find him, I have no doubt several views will be suggested to those present. One of the first thoughts that would suggest itself to any one is that the man is simulating. This idea, I believe, can be dismissed. He is, so far as we have been able to determine, a genuine case of mental disorder, the phenomena which have been exhibited here this evening constituting an essential portion of the psychical affection. Many here present, however, are trained in the observance of mental and nervous manifestations, and I would like to hear from them as to the nature of the case.

Taking up the phenomena themselves in detail, let us question ourselves as to their nature. Have we here genuine catalepsy? What constitutes catalepsy? What are the pathognomonic symptoms of this ancient but not well-understood affection? I have recently been interested in the subject of catalepsy, and I find some want of clearness in authorities as to its distinctive differential features. Rosenthal and some others would make waxen flexibility the *sine qua non;* in its absence regarding the case as not one of genuine catalepsy. Waxen flexibility and unconsciousness of surroundings are the two points upon which most stress is laid by the majority of well-known writers. What is to be understood by waxen flexibility? I take it that it is a symptom which shows itself in the following way: A patient's leg, or arm, or fingers, his head, or his trunk, on being placed without command, or without remark, by the operator in any special position, will there remain as long as it is possible under ordinary physical laws for it to continue in that position. Such limb or part can be moulded like wax or lead into every possible shape, and will there remain independently of or in spite of commands to the contrary. The true cataleptic patient, according to this conception, is in such a condition as to consciousness that he is not capable for the time being of understanding or of obeying a command. So far as mentality is concerned, he is a genuine "wax figure." This, in my opinion, is a very rare

condition. I have sometimes almost doubted its existence. I have certainly seen very few cases which would answer to the picture which I have tried to draw.

Certainly, waxen flexibility, as I have thus described, is not present, or at least not always present, in this patient. It is true that even when I say nothing, his limbs will sometimes remain in the grotesque positions in which they are placed; but he is not in a strict sense unconscious of what is being done. The very movements of my hand, my appearance (for these patients do see, although their eyes are partly closed), may in this peculiar frame of mind suggest to him my wishes. I am inclined to think that many of the cases reported as examples of catalepsy are, in reality, cases which present phenomena analogous to those shown by this man.

These phenomena are those which have for many years been known and described under various names. I well remember, when a boy, attending a series of exhibitions given by two travelling apostles of animal magnetism, in which many experiments similar to those exhibited this evening were performed upon individuals selected, apparently, at hap-hazard from a promiscuous audience, these persons having first undergone a process of magnetizing or mesmerizing. In the experiments of Heidenhain, of Breslau, upon hypnotized individuals, many similar phenomena were investigated, and described and discussed by this physiologist under the names of "automatism at command," and "imitation automatism." The hypnotized subjects, for instance, were made to drink ink, supposing it to be wine; to eat potatoes for pears; to thrust the hand into burning lights, etc. They also imitated all manner of movements possible for them to see, or to gain knowledge of by means of hearing, or in any other way. They behaved like imitating automatons, who repeated movements linked with unconscious impressions of sight or hearing, or with other sensory impressions. It was noted in the experiments of Heidenhain, that the subjects improved with repetition. I am inclined to believe that the patient before us performs better to-day than he did yesterday, or the day before. His manifestations, although, in my opinion, not simulated, have been improved somewhat by practice. Charcot, Richer, and their *confrères*, have made similar observations on hysterical and hypnotized patients, which they discuss under the name of "suggestion."

Hammond (MED. AND SURG. REPORTER, vol. xlv., Dec. 10, 1881,) suggests the term "Suggignoskism" from a Greek word, which means "to agree with another person's mind," as a proper descriptive designation for these phenomena. In referring to persons said to be in one of the states of hypnosis, he says that he does not believe that the terms hypnotism and hypnosis are correct, as, according to his view, the hypnotic state is not a condition of artificial somnambulism; the subject, he believes, is in a condition where the mind is capable of being affected by another person, through words, or other means of suggesting anything. In the clinical lecture during which these opinions were expressed, Hammond is reported to have performed on four hypnotized young men experiments similar to those which have been exhibited this evening upon this insane patient. His subjects, however, were not cases of insanity. A bottle was transformed by suggestion into a young lady; sulphur was transmuted into cologne; one of the subjects was bent into all sorts of shapes by a magnet; another was first turned into Col. Ingersoll, and then into an orthodox clergyman, etc. In reading such reports, and in witnessing public exhibitions of the kind here alluded to, one often cannot help believing that collusion and simulation enter. Without doubt, this is sometimes the case, particularly in public exhibitions for a price. What has been shown here this evening with this man mentally afflicted—what has been shown again and again by honest and capable investigators of hypnotism—prove, however, not only the possibility, but the certainty of the genuineness of these phenomena in some cases.

Dr. H. C. Wood did not see that this case is closely allied to catalepsy. He had never seen a case which he considered genuine, thorough catalepsy. He had seen a number of cases occurring in the somnolent state or cerebral syphilis and various other disorders, in which there was a tendency to catalepsy—of course, using the term in its narrow sense. He believed this to be simply a case of automatism at command. He noticed when Dr. Mills raised the hand, that the man moved his hand rather by his own effort than by permitting it to be lifted by the doctor. This shows that the man interprets the muscular movement just as he interprets the command to march. The apparent catalepsy is simply the result of the command. He had seen exactly the same condition in a child two or three years of age under the care of Dr. de Schweinitz. The child could be placed in any position, and would stay there almost indefinitely. He

could see very little relation between this and true catalepsy. This is a psychical condition, while catalepsy is probably a disease involving lower nerve centres than are affected in this man.

Dr. Hobart A. Hare said with reference to Dr. de Schweinitz's case, that it exhibited more of the lead-pipe character than does this one. When the attempt was made to move a limb, it moved in a stiff way. One of the peculiar positions in which the child was placed was to seat it on the floor with the head and feet pointing toward the ceiling. It would remain balanced on the coccyx for some time, until it fell over exhausted.

The President preferred to accept the German definition of catalepsy, as given by Dr. Mills. In his lifetime he had seen two cases—one for but a few moments before the condition passed off. The other was most extraordinary. Many years ago he saw a young lady from the West, and was told not to mention a particular subject in her presence, or very serious results would ensue. He did mention this subject, rather with the desire to see what the result would be. She at once said, "You will see that I am about to die." The breath began to fail, and grow less and less. The heart beat less rapidly, and finally he could not distinguish the radial pulse, but he could at all times detect the cardiac pulsation with the ear. There was, at last, no visible breathing, although a little was shown by the mirror. She passed into a condition of true catalepsy, and to his great alarm remained in this state a number of days—something short of a week. Throughout the whole of this time she could not take food by the mouth. Things put in the mouth remained there until she suddenly choked and threw them out. She apparently swallowed very little. She had to be nourished by rectal alimentation. She was so remarkably cataleptic that if the pelvis were raised, so that the head and heels remained in contact with the bed, she would retain this position of opisthotonos for some time. He saw her remain supported on the hands and toes, with feet separated some distance, with the face downward, for upward of half an hour. On one occasion, while she was lying on her back, he raised the arm and disposed of the fingers in various ways. As long as he watched the fingers, they remained in the position in which they had been placed. At the close of half an hour, the hand began to descend by an excessively slow movement, and finally it suddenly gave way and fell. Not long after this she began to come out of the condition and quite rapidly passed into hysterical convulsions, out of which she came apparently well. He was not inclined to repeat the experiment.

Dr. James Henry Lloyd related the following case: A male patient, about twenty-five years of age, presented himself at the Nervous Dispensary, University Hospital, with a history of masturbation, and was then suffering with a consequent sexual hypochondria. His manner and facial expression indicated profound melancholia. He told his story with difficulty, and tended constantly to lapse into silence and brooding introspection. While a relative, who accompanied him, was relating some details of the case, the patient was observed to fasten his eyes steadily on the blank wall and remain in a fixed attitude. On seizing his arms and elevating them above his head, they were found in a condition of true "lead-pipe" flexibility, with prolonged persistence in the positions in which they were passively fixed. At the same time the patient was apparently unconscious or unmindful of the experiment; and even required a loud call, accompanied with a decided nudge, to bring him to himself. The case throws some light, possibly, upon the psychology of these interesting conditions. This patient was no doubt in an exaggerated state of what is usually called "abstraction of mind," which all persons experience in minor degrees. He was absorbed in his melancholy reflections, and oblivious to peripheral impressions. Subsequent observations failed to discover him in this condition.

Dr. Henry said that the idea of simulation in this case, as has been stated, can unquestionably be dismissed. Before any conceivable motive could be ascribed, the actions were more marked than to-night. Since his admission, five or six days ago, he has quite spontaneously assumed various attitudes—dramatic attitudes, attitudes of prayer, etc. In moving the man's limbs there is a considerable of the "lead-pipe" element brought out.

Another feature of the case is that the man has had peculiar convulsions resembling epilepsy. He, however, has not lost consciousness. By vigorous shaking and calling, he could be recalled to himself, but his face is absolutely apathetic, and to all appearances he is unconscious; he also refuses to eat, which agrees with the classical descriptions of katatonia; he has to be fed either artificially, or through the fear of artificial feeding, after the nasal tube has been resorted to once or twice, he will take food without it.

NEW YORK ACADEMY OF MEDICINE.

Regular meeting, January 21, 1886.

The President, A. Jacobi, M. D., in the chair.

Reflex Symptoms in Nasal Affections.

Dr. Emil Gruening opened the discussion with a brief paper on reflex ocular symptoms in nasal affections. There were a number of cases, he said, in which ocular symptoms existed, such as sensitiveness to light, lachrymation, redness of the conjunctiva, which measures directed toward the eye, failed to relieve, but which disappeared almost immediately upon instituting nasal treatment. Of course, not all eye affections, the cause of which was not quite apparent, would yield to treatment directed to the nose, but he still had a list of 150 cases in which the result of the treatment went to confirm the view that there was an intimate relation between the disease in the nose and that in the eyes. The nasal treatment would depend upon the affection present. In some cases there was only a slight catarrhal appearance of the Schneiderian membrane, and in others nothing abnormal could be discovered, yet treatment directed to the nose resulted in a disappearance of the ocular symptoms. Dr. Gruening did not include among these cases those in which the eye disease could be accounted for by direct extension of the nasal disease up the lachrymal canal.

Dr. Thomas A. McBride followed with a paper in which he gave the histories of five cases of migraine with supra-orbital neuralgia and other symptoms, which treatment failed to relieve until some nasal affection had been discovered and cured. In these cases the diagnosis and treatment of the nasal affection was by specialists in rhinology. In one case troublesome rumination disappeared after treatment applied to the nose.

Dr. Beverly Robinson read a paper chiefly devoted to a consideration of hay fever and asthma as reflex symptoms of nasal disease. Such connection had been shown to exist by McKenzie, of Baltimore, Daily, of Pittsburgh, and had been widely confirmed by operations on nasal disease at the hands of numerous rhinologists, the hay fever or asthma disappearing upon the institution of nasal treatment. Dr. Robinson took a middle view on the question whether the sensitive part of the nasal mucous membrane was very limited or widely distributed; and regarding the use of solution of cocaine for the allaying of pain and to reduce the thickened condition of the lining membrane of the nose, he thought that if used for some time the result would be to cause hyperæmia.

The subject was further discussed by Drs. Goodwillie, Baruch, Schweig, and the President.

NEW YORK PATHOLOGICAL SOCIETY.

Stated meeting, February 10, 1886, John A. Wyeth, M. D., president, in the chair.

Chronic Endocarditis with Interstitial Myocarditis as a Result of Partial Occlusion of the Coronary Arteries.

Dr. T. Mitchell Pruden presented the specimen with a brief clinical history, for which he was indebted to Dr. Polk. The specimen was interesting from the fact that it was a good illustration of the pathological condition present, and also because it was one of those cases in which patients suffering from a serious lesion of an important organ get along very well until some intervening condition disturbed the balance, when death was liable to take place from the original disease. This patient had resolving pneumonia when death occurred. There was also Bright's disease of the kidneys.

Dr. W. M. Carpenter asked whether there was atheromatous change in the arteries in other organs, as the kidneys.

Dr. Pruden replied there was not; that the narrowing from atheromatous degeneration was present only in the coronary arteries. Of course it would be impossible to examine all of the arteries of the body with regard to this condition.

Dr. Carpenter asked the question, because recently there had been considerable discussion regarding the connection between chronic diffuse nephritis and general fibroid degeneration of the arteries.

Dr. Carpenter had in a number of cases found no evidence of general fibroid degeneration of the arteries in chronic Bright's disease. In other cases it was present.

Drs. Pruden and Waldstein concurred in this statement.

Acute Primary Suppurative Nephritis.

Dr. L. E. Holt presented the heart and kidneys of a child dead at the seventh month after suffering three weeks from an acute disease, having previously been strong and healthy. The symptoms at first were obscure, but later there were all of the evidences of meningitis. There also appeared in the urine after the first examination, which was negative, albumen, casts in great abundance, pus and blood. As there was a

family history of tuberculosis, and there were pulmonary signs, Dr. Holt diagnosticated acute general miliary tuberculosis. But the post-mortem examination revealed no tubercles anywhere. There was cerebral congestion, and three ounces of fluid in the ventricles; moderate broncho-pneumonia; and marked acute suppurative nephritis, which was believed to have been primary—a rare condition.

The question as how one could collect the urine of young children being raised, Dr. Holt said he employed a clean sponge placed under the diaper. He thought it was not uncommon for children to cease passing urine for as many as twelve hours, without other cause than perhaps a nervous one.

Dr. Newcomb said with regard to the administration of antipyrine, which was employed in this case, that a friend of his gave two grains to a child under six months, and dangerous symptoms of collapse developed. The child recovered, however.

THE BALTIMORE ACADEMY OF MEDICINE.

Stated meeting held March 16, 1886.

Myopia, with Intense Squint.

Dr. J. J. Chisolm said that myopia, with intense squint, was very rare, the reverse being the rule. He has, however, lately had a case with a most pronounced convergent strabismus and a high degree of myopia. He operated three times in the usual way, and was finally obliged to not only do a tenotomy on the internal rectus muscles, but in addition to stitch the ball to the outer angle of the eye in order to keep it in its straightened position. By this procedure one eye was straightened, but the other still has some squint left. The myopia was congenital, and the high degree of squint was brought about by the very short range of vision.

Pedunculated Growth of the Labium.

Dr. H. P. C. Wilson showed a pedunculated growth of about the size of a hazelnut that he had removed from the labium of a young woman. He takes it to be one of the common moles. He removed it because it gave rise to considerable irritation when she walked. It grew from the skin surface of the labium.

Dr. J. Edwin Michael referred to a case he had reported some time since of a similar growth of about the size of two fists that grew from the left labium majus. It was attached by a pedicle of about the size of the thumb. When in the recumbent posture the growth lay close up between the thighs, but when standing, its elasticity permitted such stretching that by its own weight it hung down almost to the knees. He removed it, and recovery took place without any accident. When he first saw it, it was sloughing at its lower part, probably from a bruise. He has always been at a loss to understand how the woman had become pregnant, with a growth of such a size in such a position.

Dr. Hiram Woods read a paper on

Foreign Bodies in the Orbit,

and related a case in his own practice.

DISCUSSION.

Dr. J. E. Michael has never, in his experience, seen an orbit that he thought could accommodate a piece of wood 3.3 inches long without one end sticking out.

Dr. Woods is unable to find a skull in which the orbit exceeds two inches from before backward. He read the original report of the case referred to, as quoted by Lawson in his book on "Injuries to the Eye Orbit and Lids."

Dr. J. J. Chisolm some years since treated a man who had been stabbed with a penknife through the upper eyelid into the orbit; the lid wound healed kindly, but the orbit wound began to give trouble; he removed later from the socket tissues a piece of knife blade over an inch long. No injury to the ball.

Dr. W. C. Van Bibber had seen some years since a case of tetanus in a man who had the disease as a result of a foreign body in his foot. He had fallen upon it from a distance, and the metal had become imbedded in the tissues. The size was so great that he preferred not to estimate it then, as he did not have the foreign body at the meeting with which to corroborate his statement.

Dr. P. C. Williams saw in one of the Paris hospitals a man who had been shot under the right eye, and the ball came out behind the left ear. He recovered.

Dr. J. J. Chisolm has seen these injuries destroy both sight and hearing, without destroying the brain. He had once removed a splinter of hard wood from a man's cheek. It had remained in this position, just below the eye, for nine years, without giving rise to any trouble whatever.

Dr. Chas. H. Ohr had seen a man in whose flank a ball had entered, splintering the spinous process, and coming out behind the hip-joint on the opposite side.

Dr. J. E. Michael has no doubt of what *has* happened; but certainly, lately—that is,

in the last four or five years—all the gunshot wounds that he has seen, if fired from a pistol of any size, were remarkable for the *direct* course taken by the ball. It may be due to an improvement in the kind of firearms now in use, or in the ammunition, but certainly in his cases the ball has passed straight through all the tissues.

He cited the Garfield case as a result of what may be done with the 38-calibre English bull-dog pistol, the weapon most commonly used.

Dr. C. H. Ohr thinks deflected bullets are usually partly spent, or else are feebly propelled. He does not believe a ball will usually be deflected, if properly propelled and fired at close range.

He had seen a case of a man who held a pistol in his hand, and directed it into his thigh, just above the internal condyle of the femur; the ball passed straight through the joint and came out below the head of the fibula.

Dr. P. C. Williams thinks the angle at which a ball strikes a tissue has much to do with the direction it takes afterward.

Dr. J. J. Chisolm thinks short range will explain the frequency of straight wounds in civil practice.

Dr. J. E. Michael had recently seen a man who had, in attempting suicide, fired four small balls (22-calibre) into his head; none of them penetrated the skull.

(To be continued.)

EDITORIAL DEPARTMENT.

PERISCOPE.

The Influence of Kairin, Thallin, Hydrochinon, Resorcin, and Antipyrin on the Heart and Blood-vessels.

Chemists, for a number of years, have been industriously experimenting, hoping to find a way to produce quinine artificially. The result has been the discovery of a number of substances, some of them belonging to the phenol series of organic compounds, and possessing to an eminent degree the power of reducing hyper-pyrexial temperatures. Of these, kairin, thallin, hydrochinon, resorcin, and antipyrin, have all been found to reduce abnormal temperatures to a greater or less degree, in almost all febrile disorders promptly, though perhaps not permanently. An experimental inquiry into the probable relations of these new antipyretics to the circulatory apparatus has been made by Dr. H. G. Beyer, and the results, which he gives in an elaborate article on the subject in the April number of *The American Journal of the Medical Sciences*, justify an attempt to solve the problem.

The experiments have been arranged into two groups:

1. Experiments on the work done by the heart when isolated from the central nervous system.

2. Experiments on the blood-vessels: on the flow through the vessels of animals the brains and spinal cords of which had been destroyed; on the lingual vessels of curarized frogs.

In addition to this, a short account of the influence of these drugs upon the corpuscular elements of the blood and the coagulation of blood is given.

Dr. Beyer's experiments show that kairin reduces temperature, both by diminishing heat production and by increasing heat radiation. The distinctive influence it exerts on the red blood-corpuscles, however, and the weakening effect upon the heart, render its employment objectionable and dangerous.

Thallin, like kairin, reduces temperature by diminishing heat production, and by increasing heat radiation; as an antipyretic it is less dangerous, but no less objectionable, than kairin, for while its effect upon the ventricle of the heart is less depressing than that of kairin, its influence upon the blood-corpuscles is sufficient to condemn it.

The action of hydrochinon is similar to that of kairin and thallin. Resorcin reduces the temperature by increasing heat radiation by the dilatation it produces in the capillaries and veins, especially the latter.

Antipyrin reduces temperature purely by increasing heat radiation, owing to its extensively dilating the veins and capillaries; but what stamps it as an excellent antipyretic is that, besides dilating the veins, it also has a tonic influence on the heart and slightly increases arterial pressure, or, at any rate, does not cause a diminution of the same. It has, moreover, no injurious influence on the blood or the muscular tissues, and strengthens the auricles.

The objection to the employment of kairin and thallin as antipyretics arises from the fact that they cause heart paralysis, espe-

cially affecting the auricles, in doses only slightly larger than are sufficient to produce a lowering of the temperature. But this objection becomes an absolute danger when we take into account the destructive influence upon the blood-corpuscles and tissues generally.

Hydrochinon and resorcin, although not exerting the same weakening and directly paralyzing influence upon the ventricle of the heart which is peculiar to kairin and thallin, both paralyze the venous side of the heart, viz., the auricles, and greatly lower the tone of the walls of the veins. The extra amount of blood, therefore, which is driven into the veins through the increased action of the ventricle, is only with great difficulty returned to the ventricle, and here the danger is not so much from failure in the power of the ventricle, as in the case of kairin and thallin, as from the danger of *bleeding the animal to death into its own veins.* The intense visceral and especially pulmonary congestion found post-mortem by Dujardin-Beaumetz and others, in animals killed by resorcin, seems to confirm this view of the matter.

Antipyrin, though largely dilating the veins, increases the power of contraction of both auricles and ventricle, and has no injurious influence upon the blood nor the muscular tissues, and therefore possesses, indeed, all the good qualities of a perfect antipyretic.

Lactic Acid as a Destroyer of Pathogenic Tissues.

The *Annals of Surgery* says:

Since Mosetig-Moorhof's favorable results with this agent (*Centbl. f. Chirg.*, 1885, No. 12,) various other observers have made use of it, in lupus, superficial epithelioma, papillomatous growths, fungous processes, scrofular ulcerations, laryngeal phthisis, etc. Its advocates claim that it is not a true caustic, but selects diseased and spares healthy ti ssue. Wherever its application is practicable, it is consequently to be preferred to curetting.

The acid is a syrupy liquid miscible with water. Though not considered necessary by some, its action may be confined by covering surrounding parts with plasters, collodium, or traumaticin; fats are an impediment. It is applied on linen, felt, or the like, either pure or reduced with water, or mixed as a paste with pure pulverized silicic acid. It may be applied with a brush, but does not then act as rapidly. It is further recommended to bind it on with rubber, paper, or other confining material. It causes considerable pain for a few hours (Bum says 1-3) and is usually removed in twenty-four or less.

Joseph (*Deut. Med. Woch.*, 1885, No. 43,) cured a leucoplakia buccalis with 80 per cent. diluted lactic acid. Schnitzler reported at the September Naturforscher-Versammlung his experience with it—not very favorable—in tuberculosis of the larynx. Krause, of Berlin, has also used it in this affection, and Jellinek (*Wien. Med. Wochenschrift*, 1885, No. 46), in Schrötter's clinic, has for some months given it a more thorough trial. For this purpose he prefers a 20 to 80 per cent. solution. The healthy mucous membrane is but slightly affected, while infiltrated portions are slowly destroyed. The more succulent the infiltration, the more vigorous the action; œdematous parts shrink in three or four days, and troubles in deglutition are rapidly relieved. Most favorably affected were small ulcerations, especially on the vocal cords; larger sores were only prevented from further growth. In ulcerous, granular and hypertrophic pharyngitis he had good results. In nasal troubles simple brushing does not suffice; longer contact is necessary. J. believes that in laryngeal phthisis by daily applications more can be accomplished with this than with any other remedy, and that in its earlier stages it can thus be cured.

Bum (*Wien. Med. Wochenschrift*, 1885, No. 47) has for several months been employing it in fungous, *i. e.*, tubercular disease of soft parts—skin, subcutaneous tissue, lymphatic glands—in dispensary practice. The unhealthy granulations are reduced to an easily reducible pulp; the walls of the cavity do not bleed; after two or three applications, with intermediary pauses of two days, a permanent dressing of iodoform gauze is used, abundant healthy granulations develop, and a smooth, soft scar results. Lactic acid will attack healthy as well as unhealthy epidermis, but in the subdermal tissues it seeks out fungous nests and destroys them. B. gives short histories of nineteen cases in patients from 1 to 52 years of age. There were eight males and eleven females; eight ulcers, seven fungous and four fistulous. The average number of acid dressings was three, and the average time of cure twenty-five days, or, deducting one who removed dressings, but nineteen and eight-tenths days. No failures, and up to date, six weeks to five months later, no relapse.

Finally, Mosetig has returned to the subject again (*Wien. Med. Wochenschrift*, 1885, No. 48), with the demonstration of good results in a large facial epithelioma in a man æt. 55, and an ulcus rodens on the face in a

women æt. 60. In the former he had made twenty-six applications in a month, and in the latter he had made twenty already. In caries he finds it excellent, good demarcation being produced, and there being less liability to relapse than after curetting. He has tried injections of the acid, ½ to 1 gram. of a 50 to 70 per cent. solution. Whether relapses may yet occur, he, of course, cannot say.

A Modification of Fehling's Solution for Testing for, and Estimating Sugar in Urine.

Dr. F. Cresswell thus writes in a foreign exchange:

I have always found that the chief inconvenience in using Fehling's solution for estimating sugar was that it would not keep for above a few weeks at the outside, and in hot weather it frequently became untrustworthy in a much shorter time. This trouble is owing to the readiness with which the sodium and potassium tartrate undergoes decomposition. I have therefore tried to dispense with the use of this salt, and I think have succeeded thoroughly in the following manner: After trying several organic substances which were not prone to decomposition in an alkaline solution, I have found that glycerine answers best. It completely prevents the precipitation of copper sulphate by caustic potash or soda, and the solution will keep for an indefinite time in an open vessel—in fact, until the caustic alkali becomes converted into carbonate, and in a stoppered bottle seems quite permanent.

I find that grape-sugar reduces somewhat less copper from the glycerine solution than from the tartrate solution, and that uric acid will scarcely attack it, whereas it was one of the chief causes of fallacy in Fehling's test.

The best method of preparing the solution is as follows: Take about 35 grammes of copper sulphate, and dissolve it in 200 cubic centimetres of glycerine and 100 cubic centimetres of water; then add 80 grammes of sodium hydrate dissolved in 400 cubic centimetres of water, and boil the whole for fifteen minutes. This is necessary, as all the specimens of glycerine which I have met with contain a small quantity of some substance capable, at a boiling heat, of reducing an alkaline solution of copper. After boiling, the solution is made up to 1 litre with distilled water, and allowed to stand until it is clear. It must be standarized by a solution of grape-sugar of known strength for accurate determination, and is sure, if made as above, to require diluting. If it only be required for rough clinical purposes, the above quantities may be diluted to 1250 cubic centimetres; 10 cubic centimetres will then be approximately equal to 5 centigrammes of sugar.

The process is carried on in exactly the same way as the well-known method of Fehling; 10 cubic centimetres of the copper solution are mixed with 50 cubic centimetres of water, and boiled in a small flask, and the solution of glucose (which should not contain more than one per cent.) is slowly added from a burette, the contents of the flask being kept steadily boiling until the original blue color of the solution has entirely disappeared; the quantity of the solution used must then have contained 5 centigrammes of sugar. Diabetic urine usually requires diluting to one-fifth or one-tenth, in order to reduce the sugar below one per cent. For example, 10 cubic centimetres of a diabetic urine were dilated to 100 cubic centimetres, and transferred to a burette; 10 cubic centimetres of the copper solution require for complete decolorization 26 cubic centimetres of this diluted urine; 2.6 cubic centimetres of the original urine, therefore, contain 5 centigrammes of sugar, or 100 cubic centimetres would contain 1.92 grammes, or 1 ounce (437.5 grains) would contain 8.4 grains of sugar. In the quantitative examination of urine for sugar a few drops of the copper solution are mixed with about 5 cubic centimetres of water and boiled, about ten drops of urine are added, when, if sugar be present, on again boiling for a few seconds, the characteristic brick-red hydrated suboxide of copper will fall.

I hope the above will prove especially useful to country practitioners, who seldom require to test for or estimate sugar, and who, when they do, by using the above solution, will escape the annoyance of finding their testing solution decomposed and useless. I have had some of the above solution in an ill-stoppered bottle for between four and five years, without any signs of decomposition.

Typhoid Fever; Death Eight Months after from Ulcers of the Intestines and Diseased Kidneys.

Mr. Lockwood thus writes in the *Medical Press*, March 17, 1886:

Ellen C., æt. 22, was admitted into the Sheffield Public Hospital on October 22, 1885, under the care of Dr. Thomas, to whom I am indebted for permission to relate the following notes of the above case:

On admittance, she said that she had been in the infirmary at the Firvale Workhouse six months ago with typhoid fever, and Mr.

Kilham has kindly furnished me with the particulars of her illness there, together with the temperature chart.

"Was admitted into the Union Infirmary on May 20, very anæmic, not much purging during the first few days, but afterwards had five or six motions per diem, of the usual typhoid character. About the end of June she had severe pain in the lower part of the abdomen, swelling and some hardness and some dullness over the left ovary and broad ligament, very tender on pressure, and due (Mr. Kilham thought) to inflammation of the above structures. With opiates and fomentations the pain and swelling subsided in a few days. There did not seem to be any tumor internally, but she was not examined per vaginam. After all her pain and diarrhœa had disappeared, she was kept in bed for a good month, because her temperature was high. She said that she felt all right and wanted to get up. On July 25, she was put on the citrate of iron and quinine, and became stronger every day, and was discharged at her own request September 13, after four months' residence. Her temperature was invariably high at night. She had not been unwell whilst an in-patient, and had no cough."

She was thus admitted under Dr. Thomas one month after leaving the workhouse infirmary, having tried to resume her work, but failed, and the old pain returned in the abdomen, she lost flesh and had constant diarrhœa, with sickness and pain in the back.

On admission, her condition was as follows: Very pale and anæmic, much emaciated, diarrhœa, abdomen tympanitic all over, with great tenderness over both iliac regions, and a swelling in the left one and gurgling in the right. The case was diagnosed as either relapse of the typhoid with peritonitis, or else tubercular peritonitis, but she had no lung sickness.

During the whole of her stay in the hospital her symptoms remained fairly consistent. She lost flesh, had diarrhœa of an intermittent character, the stools at times stained with blood, vomiting especially during the latter part of her life. She sank gradually, and died on December 28th, two months after her admission, and eight months from the commencement of her illness. She was examined per vaginam, and the uterus was found to be firmly fixed, hot and tender to the touch. There was albumen in the urine, but not to a large amount, and the heart and lungs were normal.

Post-mortem was made twenty-four hours after death. On opening the abdomen, the omentum was scanty, and the walls of the intestines extremely thin and almost through in one or two places. All the pelvic organs were firmly adherent, and could not be separated. The right ovary had apparently undergone cystic degeneration, as had also the left one. On opening out the ileum, seven or eight ulcers were found, specimens of which are shown, extending from the cæcum up the ileum for about two feet, but there were none elsewhere.

Kidneys.—The left kidney was of great size and had the appearance of a large white kidney. The right kidney was completely riddled with cysts, and its supra-renal capsule was of great size, very like the appearance of those bodies in Addison's disease. All the other structures were normal.

Remarks on Colloid Degeneration of the Skin.

Dr. Robert Liveing thus writes in the *Brit. Med. Jour.*, March 27:

Three cases of a rare degeneration of the skin have come under my observation during the last few years, to which I desire to call the attention of those who are interested in dermatology. Unfortunately, all three cases occurred in private practice; and I have been unable to exhibit them, or even to make a microscopic examination; therefore all my remarks will be simply clinical.

I will preface these remarks by saying that a similar disease or degeneration has been referred to by Wagner, under the name colloid milium, and by Besnier as "colloid degeneration of the skin." Duhring says "the disease is characterized by numerous disseminated, small, pin-head sized, discrete, rounded, flat or slightly raised lesions, of a pale or bright lemon color. They are shining and translucent, and have the appearance of being yellowish vesicles. Their appearance, however, is deceptive, for they are of firm or solid consistence. When pricked with a needle, or opened sufficiently deep to cause bleeding, a whitish, or yellowish, transparent gelatinous substance may be expressed." He also says that it resembles xanthoma, but the lesions differ in being bright and translucent. With this latter remark, I entirely agree. In each of the three cases that I have seen, the first glance led me to believe that I had before me a case of xanthoma, and suggested to me the name colloid xanthoma. A careful examination, however, satisfied me that the disease was not xanthoma, or at all events that, if the little growths were originally

xanthomatous, they had undergone, and were undergoing, remarkable changes from their original condition, and quite unlike those usually seen in xanthoma.

The first case I met with was in a young woman; of this case, I lost sight. The second was in a man; the disease attacked his face and neck, and ran its course in about a year; he at last quite recovered. The third instance was in a girl of about 16, in whom the face, neck, and arms were attacked. The following brief description taken from my notes of one of the cases, will apply pretty nearly to the other two. The little growths are scattered about the face, neck, and upper arms, and many of them are undergoing metamorphosis; there are, however, one or two very perfect ones on the back of the neck. They consist of small, slightly raised, yellowish tumors, varying in size from a large pin's head to a split-pea, somewhat flat, of solid or semi-solid structure, but from being translucent, they look as if they contained fluid; minute vessels are seen round the margin of some of the larger ones; the appearance of these reminds one of the rodent ulcer in its earliest stage, though the resemblance is in appearance only. These little tumors undergo change by the formation of a central depression, so that many are umbilicated, the depression gradually becoming a shallow, crater-like excavation; and, lastly, they inflame, scab, and dry up, leaving a mark, but not a defined scar. The changes which they undergo remind one of those seen in molluscum contagiosum, but the general appearance is not very like that disease, and could not be mistaken for it.

It would be interesting to determine the two following points with regard to the disease: (1) where, and under what circumstances, the disease originates, whether from previously healthy skin; or (2) whether the degeneration may not occur in more than one disease of the skin, such as, for example, milium, xanthoma, and molluscum contagiosum.

Pure Terebene in the Treatment of Winter-cough.

Dr. C. W. Suckling says in the *Brit. Med. Jour.*:

Upon seeing in the *British Medical Journal* for December 12, 1885, Dr. Murrell's eulogistic account of the action of pure terebene in winter-cough, under which name, I presume, he includes all cases of chronic bronchitis and emphysema, also cases of chronic phthisis, but not those cases depending upon heart disease, I determined to give the drug a trial in the Birmingham Workhouse Infirmary, where a great number of such cases are met with during the winter months. I had for some years previously frequently ordered terebene inhalations for the relief of urgent dyspnœa in these cases, but had never administered the drug internally. I accordingly prescribed pure terebene, obtained from Messrs. Southall & Co., the well-known Birmingham chemists, in 100 cases, giving five drops every four hours, increasing the dose to ten drops in a day or two, with the following results:

Of the 100 cases, 94 were cases of chronic bronchitis, and 6 of chronic phthisis. Of the cases of chronic bronchitis, 68 were relieved, and 4 of the cases of phthisis; that is 72 per cent. of all the cases were benefited. Several of the cases were "greatly" relieved. Twenty-eight patients were not relieved; 11 complained of nausea, 11 of headache, 10 of thirst, 2 of vertigo, 2 were purged, 1 complained of a burning sensation at the stomach, and 1 that he was always passing his urine. The symptom most constantly relieved was dyspnœa. The 72 patients benefited all said that the medicine eased their breathing, but many asked for medicine in addition to ease the cough.

I compared the above results with those obtained previously by our routine method of treatment, which consists in prescribing a mixture of ammonia and senega (℞. Ammoniæ carbonatis, gr. iij.; tincturæ scillæ, ℥xv.; tincturæ camphoræ co., ℥xv.; infusum senegæ, ad ℥j.), with the occasional addition of a few grains of iodide of potassium if expectoration were difficult, and of a small quantity of lobelia if dyspnœa were marked, many cases also being given cod-liver oil, the latter being, in my opinion, one of the most useful of all drugs in the treatment of chronic bronchitis. I collected the prescription papers of 100 cases that had been treated during the last few weeks before I commenced the terebene treatment. Of the 100 cases, 28 were discharged well, the chest being perfectly clear; 68 were discharged relieved, and 4 left the infirmary unrelieved. None of them complained of any ill-effects of the remedies used.

The great majority of the cases treated in the infirmary were old people, who had suffered from bronchitis for years. Of course, the mere admission, from their wretched homes, of these patients, into warm wards, with good food and nursing, will account for a great deal of the relief given, but this holds good in the case of the terebene as with the other drugs given.

I feel obliged to conclude, from my experience with terebene—

1. That it greatly relieves the dyspnœa of chronic bronchitis.

2. That it is very variable in its action, the same specimen causing good results in some, bad symptoms in other patients.

3. That it is by no means a specific for chronic bronchitis.

A Note on Lewinin, the New Local Anæsthetic.

Dr. N. A. Randolph thus writes in the *Med. News*:

In the editorial columns of the *Med. News* of February 13, 1886, there is given a brief account of the physiological properties of a semi-fluid resin obtained from the root of piper methysticum.

In the method employed in obtaining it (extraction by petroleum-ether) two resinous bodies are obtained, the resin of lesser density only being efficient. To this body Lewin, its discover, applies in his original communication the rather cumbrous title of "Alpha Kawa Resin," for which I have ventured to substitute the name Lewinin, as above.

Although I have not been able to obtain, in my experiments with the extract in question, results as marked as those presented by Lewin, several points of clinical interest have arisen, which will, I think, be of interest.

When the semi-fluid Lewinin is placed upon the tongue, there is a momentary burning sensation with increased salivary secretion, followed by a local numbness, which, while extremely superficial, is recognizable for more than an hour. Some pallor of the mucous membrane at the point of application is noticeable. I have several times swallowed about five grains of the extract thus placed upon my tongue, without appprecíable results other than those noted.

Lewinin is too painfully irritating to apply in practice to the human conjunctiva, but it is my belief that, by the previous application of cocaine, the Lewinin in solution could be instilled into the conjunctival sac, and produce its characteristic effect of prolonged local anæsthesia before the more temporary effect of the former drug had passed off.

The extract will probably be of service in dental practice, as its application certainly mitigates the discomfort of operations on the teeth of those suffering from sensitive dentine.

The most marked practical benefit, however, to be expected from the use of the drug is in cases where only a relatively superficial anæsthesia is desirable. Thus, as would have been expected, the drug is of value in rhinological practice.

Dr. Harrison Allen, to whom I handed a fifty per cent. alcoholic solution of Lewinin, kindly reports that, in practice, he has found a number of cases of nasal trouble in which the drug could not only be availably substituted for cocaine, but in which its action was more satisfactory.

The extract just discussed was prepared for me something over a month ago by Mr. Llewellyn, of this city, and was, I believe, the first specimen of the drug produced in this country.

Dislocations of the Shoulder-Joint.

Dr. Thomas H. Manley writes to the *Medical Record* that his experience during the past year with luxations of the shoulder has led him to regard the accident as a much more serious one than is generally supposed. It is impossible to tell from inspection, immediately after dislocation has occurred, how easy or how difficult its reduction will be; and after repeated attempts at reposition have been made without success, another effort, perhaps by another surgeon, may be followed by the desired result. He says that of ten cases seen by him in the past year, eight were subglenoid, and were easily reduced, while 2, which were subcoracoid, were absolutely irreducible. In the successful cases ether was used only once, its administration being required on account of the severe pain. In one of the irreducible cases, occurring in an epileptic, the effect of ether was to cause a tetanic rigidity of the muscles, which, at times, became so general and so marked as to interfere with respiration. The writer believes that ether is seldom required, despite the generally accepted opinion to the contrary. Its principal value is to relieve pain, but it is questionable whether the relaxed state of the muscles which it induces is of any real value to the surgeon in the majority of cases. Dr. Manly sums up with the following conclusions: 1. The surgeon should not attempt the reduction of a dislocated shoulder without the aid of an experienced assistant. 2. Without great caution in manipulation and care not to use violence, he may very seriously injure the joint by lacerating the tissues, or fracturing the bone. 3. With the best directed efforts, some dislocations of the shoulder cannot be reduced.

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RESORCIN IN SKIN DISEASES.

Resorcin has recently been repeatedly employed in acute and chronic diseases of the skin. Dr. M. Ihle, in Leipsic, has specially investigated the effect of this drug in various chronic exanthemata, and from his report, published in the *Monatsch. f. pr. Dermat.*, 12, 1886, we extract the following results of his observations:

Though an excellent remedy in some skin affections, resorcin, in Ihle's opinion, must be cautiously employed. It purifies wounds, ulcers, etc., causes their pains to disappear and diminishes rapidly any existing lymphangitis or lymphadenitis. This can easily be explained. The lymphatic vessels and the glands in all these swell in consequence of an inflammatory condition due to the absorption of the infectious material that has given rise to the ulcer, etc. As resorcin is a reliable disinfectant, by destroying the germs of the virus it soon puts an end to any inflammation caused by the latter. In acute exanthemata, resorcin mostly is too irritating; in chronic skin diseases it is far better, but must be omitted as soon as the degenerated and thickened epidermis has become dry and dropped off. Especially good is the effect of this remedy in herpes tonsurans and in sycosis parasitica; in the latter disease it even causes the falling out of the diseased hair, so that the latter need not to be pulled out. Instead of the usual fatty ointments, I. prefers the application of a porous paste, as follows:

℞.	Resorcini puriss.,	10.0.
	Ungt. paraffini,	50.0.
	Zinci oxydat., Amyli,	āā 25.0.

M. f. pasta.

Whenever, for some cause, the quantity of the resorcin has to be increased, less starch and zinc must be used to preserve the pliability of the paste. As soon as all formation of pus has ceased, it is necessary only twice to thrice a week to apply the paste as thickly as possible with a camel's-hair brush, and to cover it with cotton-wadding. Usually the treatment is commenced with ten per cent. of resorcin, which is gradually increased to twenty-five and even up to fifty and eighty per cent. With the diminution of the inflammation, this percentage of resorcin is in the same ratio decreased. If the cure seems established, the patient should still continue to apply a three per cent. paste, first daily, and later two to three times a week. He may then, also, recommence to shave himself, while during the time of treat-

ment the hair should be cut only with scissors.

Just as certain as in this disease is the effect of resorcin in other infectious diseases, as in pityriasis versicolor and eczema marginatum. In alopecia areata and that form of seborrhœa which is accompanied by falling out of the hair (seborrhœa cum defluvio capillorum), the falling out of the hair and the intolerable itching may at once be stopped by the daily application to the diseased skin of a piece of flannel over which the following paste has been spread:

℞.	Resorcin. puri,	5.0—10.0.
	Ol. ricini,	45.0.
	Spirit. vini.	150.0.
	Bals. Peruvian,	0.5. M. S.

Pointed condylomata may be rapidly removed by the daily application of a resorcin salve containing 50 to 80 per cent. of the drug. They drop off painlessly, and broad ones too, generally with remarkable rapidity, but care must be taken to protect the neighboring healthy tissues by layers of cotton-wadding.

The only objection to resorcin, especially when it has to be used for a long time and in considerable quantities, is its high price, three ounces costing the apothecary nearly two dollars. Impure preparations are useless and irritating; but the impurity can be easily recognized, as perfectly pure resorcin has a white color, which at once changes to yellow, when the least adulteration is practiced, or when the action of light and air has decomposed the drug.

HEADACHE IN CHILDREN ATTENDING SCHOOL.

As a rule, any child attending school and complaining occasionally of headache, is at once sent by the conscientious physician to an oculist to determine the condition of the eyes. In the January meeting of the St. Petersburg (Russia) Medical Society, Prof. Bystrow, of St. Petersburg, mentioned a number of observations which he had made in a girls' normal school, and on several other children attending private schools. In the normal school were 375 girls, and of these 27 per cent. suffered with headache. Of 7478 girls and boys attending school and observed during a period of five years, 868, *i. e.*, 11.6 per cent., were found to be affected with headache. The older the children the more frequent and violent the pain in the head, so that of the children between 14 and 18 years old, from 28 to 40 per cent. were found to complain of headache. B. explains this occurrence by mental overstrain, to which the children in modern schools are exposed, for he met with this ailment not only in children visiting public schools, but also in those who, surrounded by the most favorable hygienic conditions, received private instructions at their homes.

B., for this reason, expresses the view that in every school-board a physician should be a member to give his advice as an expert. His remarks gave rise to an animated discussion. Prof. Polotebnau thought that the miserable hygienic conditions, as they now exist in schools, were mainly responsible for many a disturbance of the health of the children attending these schools; while Dr. Akulow believed that in most cases anomalies of refraction were the primary cause for the headache.

The hygienic conditions in our public schools are doubtless far superior to those of Russia, but in the practice of the writer of these lines many cases in the children attending the public schools and suffering with headache, showed no abatement of the pain whatever after the children had been supplied by an expert with the proper glasses, while diminished studies and greatly increased out-door exercise had the desired effect. We believe that in our schools the memory of the children is taxed too early and too persistently.

Notes and Comments.

Dentition in Infantile Pathology.

That children specially suffer during the critical period of dentition has long been recognized as a fact, but the question has never been determined what the influence is that causes these disturbances. The article is, therefore, interesting which Ségournet has published on this subject in the *Revue Mens. des Malad. de l'Enfance*, September, 1885.

S. carefully watched 113 children during their period of dentition; forty-seven evinced no general disturbance (S. did not consider local affections of the mouth); five suffered from bronchitis; fifteen times convulsions occurred, partly followed by nervous, cerebral, meningitis, or spinal symptoms; forty-one were affected with gastro-intestinal maladies, and five had skin diseases. *All the accidents occurring during the period of teething mostly are a product of which dentition generally is only a factor.* S. compares dentition with other transient functions—gravidity and menstruation—which, according to the peculiarities of the organism, exert a varying in-

fluence upon it. He proves by figures the favorable influence which the fact of the children being nursed by their own mother has upon dentition, and believes that the first necessary condition for a normal dentition, unaccompanied by any morbid disturbance, is that of the child receiving its first and only nourishment from the breast of its mother. A peculiar urine is often met with during the period of dentition in children. It is a milky febrile urine of acid reaction, clearing up under boiling, and free from sugar, albumen, and fat. Eclampsia usually occurred in children fed by the bottle, or otherwise unsuitably nourished, or in such whose parents were nervous, or who had hysterical mothers, or who were rhachitic or very stout.

Skin diseases happened only in children in whom a hereditary influence of that kind could be proven to exist, while affections of the respiratory organs are explained by the fact that the irritation of dentition induces vaso-motor disturbances, which give rise to these catarrhal conditions, while in cases of gastro-intestinal symptoms some predisposing or directly existing cause besides the dentition was invariably present.

A complete knowledge of the family history and of the individual tendencies of the child will enable us, according to S., to prevent these complications during dentition, though all our endeavors will mostly be in vain, if we cannot insist upon the child's being supplied with nutrition by its natural food—the milk of the mother, or in case the physical condition of the latter is not one of the best, that of a healthy wet-nurse.

Urethral Fever, with a Record of Three Fatal Cases.

Mr. F. S. Edwards, who writes on this subject in a foreign exchange, believes that this fever is nearly always caused by some disturbance of the urethra, and notably of its fixed part. The mere emptying of a distended bladder is insufficient to give rise to this fever; because it is not met with, after relief of the bladder either by rectal or by suprapubic puncture. Statistics indicate that, contrary to Sir Andrew Clark's opinion, the tendency to urethral fever is not lessened by the use of anæsthetics in urethral operations. During the past three years at St. Peter's Hospital, urethral fever, generally the acute transient form, followed in exactly fifty per cent. of all strictures operated upon under anæsthetics. In fifty-nine cases without anæsthetics, rigors followed in only eighteen. As regarded internal urethrotomy, anæsthetics were given forty-seven times, followed in twenty cases by rigors. This operation was also performed forty-seven times without an anæsthetic, rigors occurring in only nineteen cases. Three fatal cases were related; in the first, there was a sloughy, false passage, and commencing endocarditis. In the second, hemiplegia and death followed the passage of a bougie in an old man strictured for nine years. In the third, internal urethrotomy had been performed, and death from septic poisoning occurred on the fifteenth day. In conclusion, the author remarks that he has never known rigors follow division of the meatus or of anterior strictures, where the deep urethra has been left untouched. Urethral fever might be due either to local irritation, or to absorption, and probably, in some cases, to both combined. In certain stricture cases, the mere passage of a bougie was followed by rigors, which did not recur after the division of the stricture. If, in these cases, the rigors and rise of temperature were due to absorption, it was hardly possible to explain the non-recurrence of these symptoms when a wound of the urethra had been subsequently inflicted, and the conditions made eminently favorable for absorption. Such cases of fever were probably of neurotic origin. The occurrence of urethral fever might be avoided by puncturing the bladder through the rectum before performing internal urethrotomy, in order to divert, for a time, the urinary stream, and thus to keep the urine from contact with the wound, for it was by this contact that urethral fever was excited.

Thallin.

Dr. Janssen, in an article in the *Weekblad van het Nederlandsch Tijdschrift voor Geneeskunde*, mentions that he has had a favorable opportunity, in the military hospital at Helder, for testing the value of thallin. He used exclusively sulphate of thallin, dissolved in alcohol and water. This solution possesses an aromatic taste and smell, and is perfectly harmless, both when inhaled and when taken internally. It has a strong antibacteric action. The average dose given was one gramme. Dr. Janssen observed seventeen cases of malarial fever; in sixteen the thallin was of less use than quinine, since it produced no permanent effect on the disease, only serving to prevent or shorten attacks; but, when its use was discontinued, the fever returned. The indications for the use of thallin Dr. Janssen does not consider

to be numerous. In regard to antipyretic treatment, thallin should be preferred in those cases only where the temperature attains such a height as to endanger life; and, even then, he is of opinion that cold baths are better. If, however, circumstances exclude the use of cold baths, thallin is of great service, acting quickly and producing no dangerous symptoms. There is no injurious effect on the kidneys. Thallin is preferable to kairin, which produces numerous complications and unpleasant results, yet gives an extremely short period of apyrexia. It is also preferable to antipyrin, which must be used in large quantities, and, when used as an injection, is apt to produce vomiting. Dr. Janssen states that he has seen a scarlatinal patient, after an antipyrin injection, seized with violent collapse; and that another patient, who had taken 5 grammes of antipyrin, exhibited symptoms of cardiac adynamia. Antipyrin is, however, superior to thallin in the duration of the apyrexia produced. Dr. Janssen has found thallin of great service in phthisis, as very small doses control the fever.

Etiology of Scrofula in Early Childhood.

Dr. J. Comby (*Woch. Gen. de Med.*, October, 1885,) has made a special study of scrofula in early childhood. He observed the dyscrasia in 100 cases, 25 times in children under two years of age. There appeared to be no difference between girls and boys, and lymphatic temperament, instead of being the cause of the disease, was simply its first manifestation. The malady seemed to be especially frequent in the children of parents who had been formerly living in the country, and later moved into a large city. Malnutrition forms the main factor in the etiology of scrofula, for not only does it give rise to the disease in those by nature disposed to it, but it will develop even that very disposition. C. reports in his article a large number of cases in illustration of the facts mentioned.

Of the infectious diseases which create a tendency to scrofula or directly produce it, measles seem to be the most prolific. Next to measles and in the order enumerated come variola, typhoid, whooping-cough, and erysipelas. Regarding the question whether scrofula is contagious or not, C. contends that there is not a single case on record that proves such a theory. Inoculations with the virus of scrofula taken from suppurative scrofulous glands have partly been successful, partly not. It is difficult to demonstrate the presence of bacilli, and often when inoculation had been successful no bacteria were to be found.

Concerning treatment C. has nothing new to recommend. The etiological factors in many cases being known, it is the duty of the physician to prevent their occurrence, but here we find a serious obstacle in the fact that the disease attacks mainly the children of those who have not the means to employ the preventive measures most urgently needed.

Pericarditis and Pertussis.

One of the most interesting articles that have of late appeared in foreign journals, is one of Prof. Giovanni Racchi (*Arch. di Path. Infant.*, 5, 85). He attended a child suffering from whooping-cough. Soon capillary bronchitis and broncho-pneumonia developed as complications, and became so grave as to cause the death of the infant, four weeks old.

The post-mortem examination revealed not only the lesions above mentioned, but also a purulent pericarditis. As this disease in the manner in which it occurred in the infant happens only in cases of infectious diseases, R. first read the literature on the subject, and found that while whooping-cough is rare in young children, it occurs more frequently during the first few months of life than later in the first year. In cases where death set in, a frequent occurrence during early childhood, tubercular meningitis, peritonitis and pleuritis always accompany the pertussis.

R. thought, therefore, that the infection may first set in from the umbilicus; that whooping-cough was an acute infectious disease resembling miliary tuberculosis; and that the complications, as for instance, the pericarditis, were the direct consequences of the same virus, which in some cases was of a milder, in others of a graver nature, just as the poison of variola may give rise to the same disease, but of varying intensity, in different individuals.

To determine the question, R. took some of the purulent discharge and brushed it over the mucous membrane of rabbits. On the third day in some, on the fourth, fifth, and sixth day in other rabbits, the animal commenced to suffer from sudden attacks of coughing; during the next eight or ten days these seizures became more and more convulsive, and led to attacks of suffocation, and finally the animal died. The post-mortem revealed the same lesions in the pericardium, and in some rabbits also meningitis and pneumonia developed.

The virus taken from these animals in again others also gave rise to convulsive and suffocative attacks of coughing gradually increasing in severity, and with a period of incubation of twelve to fourteen days. Some of the animals, when killed in the third week, showed redness of the pericardium; otherwise the effects were milder but of the same nature.

R.'s investigations form the most important contribution of recent times to our knowledge of the pathology of whooping-cough and of its etiology.

Supernumerary Breasts and Nipples.

In the *Vratch*, No. 47, 1885, Dr. V. G. Favre describes two cases of polymastia and a case of polythelia, which recently have come under his observation in the Zemsky Lying-in Hospital, in Kharkov. One of the patients, an otherwise normally developed, strongly-built peasant, aged 30, had three accessory mammæ, two of which were situated symmetrically along the right and left anterior axillary lines, immediately above the normal glands; their respective dimensions being 11 by 8 and 5 by 5 centimetres. A third accessory gland, of the size of a walnut, was found at the bottom of the right axilla, nearer to the anterior wall of the fossa. Only the largest gland had in its centre a slightly elevated pigmented patch, the remaining being entirely nippleless. On pressure, all three freely yielded milk, which proved, microscopically and chemically, identical with the secretion of the patient's normal glands. In another patient, aged 21, only one accessory mamma of the size of a walnut was present; it was situated in the left axilla, nearer to the anterior axillary line, had no nipple, and secreted normal milk. In a third patient, aged 32, the left mamma had an accessory nipple placed below the normal one, and separated from it by a furrow, about 5 centimetres broad. It was comparatively smaller, but milk was flowing from it in abundance. According to Dr. Favre, his cases are the first of this kind published in Russia. A series of similar cases is mentioned in Dr. R. Neale's *Medical Digest*, Sect. 15–98. A valuable review on the subject, by Dr. Alban Doran, may be found in the *London Medical Record*, August, 1885, page 319.

Sprained Joints.

Before the Harveian Society of London, Mr. Edmund Owen read a paper upon this subject, in which he urged that a sprained joint should be dealt with on the same principles as those which guide the surgeon in his dealings with a fracture at or near the articulation. He advocated rest and compression for the joint, and maintained that if only the part be at once enclosed within a plaster-of-Paris casing, with even compression, effusion will be prevented, and pain allayed. He employed Croft's method of applying the gypsum splints, and urged its adoption in preference to lotions, ice-bags, simple bandaging, and strapping.

Mr. Gant would recognize two classes of sprains; those in which the tendons were affected, and those in which the ligaments only were injured. He related a case in which the extensor tendons had been torn by the foot being doubled under the leg. Passive movements should be employed early, even though pain was caused thereby.

Mr. Kiallmark advocated the use of American plaster, applied at once, instead of evaporating lotions. He would allow passive movement as soon as it was possible without pain.

Mr. Pick thought it difficult to decide when to begin passive motion, but he should generally begin early and persevere, using evaporating lotions at first. He referred to the use of very hot water in recent sprains on the stage.

Mr. Vasey mentioned the successful use of clay mould applied at once round a sprained joint.

Mr. Owen, in reply, observed that he would be guided by the heat or coldness of the joint, and not by pain, in deciding to begin passive motion.

Precautions to be Adopted in the Removal of Residual Urine.

Mr. E. Hurry Fenwick, in this paper, which he read before the West London Medico-Chirurgical Society, laid special stress upon three great causative features:

1. The reflex vaso-motor disturbance of the kidney set up by irritation of the posterior part of the urethra and the vesical nerve-plexuses.

2. The introduction of septic material upon, within, or through the catheter.

3. The injurious effects upon the badly-nourished, thin-walled vascular system of the kidney and bladder on the sudden withdrawal of its accustomed water-pressure counterpoise.

A week's rest in bed, cocainization of the prostate and membranous urethra, aseptic catheterism, the withdrawal, little by little, of the residual urine, and the replacement of

the same by antiseptic solutions, were precautions invariably adopted by Mr. Fenwick in introducing a patient to catheter-life.

Mr. Dunn, in the course of some observations, said that it was not necessary to admit that all rigors following catheterization were the result of septic infection. Some of these could be accounted for by attributing them to the manifestation of latent ague; and perhaps this would explain the rigors which have been regarded as having a neurotic origin. Sir James Paget had shown that an agueish attack might be provoked by an operation, many years after the patient had suffered primarily from the disease.

Compound Fracture of the Patella; Partial Necrosis of one Fragment; Recovery with a Movable Joint.

Mr. G. R. Turner read a paper on this subject before the Harveian Society of London. A fireman, aged 32, was admitted into the Seamen's Hospital on June 1st, 1885, with a compound transverse fracture of the patella. The cavity of the joint was open through a contused wound two inches and a half in width, from which blood was exuding, the patellar fragments being separated by about half an inch to one inch. Thorough cleansing under antiseptic precautions—the limb being fixed on a straight posterior splint, with the wound left open—constituted the first treatment. A blood-clot subsequently was found to be projecting between the fragments, but it was not disturbed. At the end of the sixth week, a small sequestrum came away from the lower fragment. He made an excellent recovery, and was discharged in October, with power to flex the knee nearly to a right angle, the fragments being then separated by about an inch and a quarter and by three quarters of an inch when the limb was extended. In his comments upon the case, the author referred to the slight separation of the fragments in cases of compound fracture, possibly due to the escape of fluid from the joint; to the aseptic course of the case, notwithstanding partial necrosis; and to the question of treatment, in which he gave the preference to the expectant plan, as opposed to wiring.

Case of Tuberculosis of the Skin.

A strumous boy, under treatment in Westminster Hospital, London, with supposed Barbadoes leg, was seen by many visitors to the International Medical Congress, when it met in London, in 1881, and no exception was taken to the diagnosis. The boy had never been beyond the environs of London. He died two years later (aged 18) of a bronchial affection, and a portion of the thickened skin was secured for microscopic examination. There was found to be general hypertrophy of skin; the dermis was thickened from overgrowth of its connective tissue, and the presence of collections of lymphoid cells; in many places there were aggregations of both large and small lymphoid cells, and among them numerous giant-cells, the spheroidal masses thus formed being practically indistinguishable from tubercles, such as were found in the liver and kidney; in the lymphatics, a red staining showed the presence of a small bacillus in great numbers, colonies being also found around the aggregations of lymphoid cells. The case was compared by Dr. Richard Hebb (who reported it), with one reported by the late Dr. Tilbury Fox, where the appearances and history were similar, but the microscopical specimens showed no trace of tubercle.

Great Distension of the Gall-bladder, Treated by Aspiration.

Such cases as the following, which Dr. Irving reported to a recent meeting of the Chester (England) Medical Society, are not common:

The patient, a woman, aged 60, of previous good health, was suddenly seized with severe epigastric pain, gradually spreading to the right hypochondrium, with tenderness. There were slight jaundice and an area of dulness in the region of the gall-bladder, both of which increased. The icterus decreased, but the motions remained pale. A syringe, inserted into the dull area, drew off a light brown fluid. Three days afterwards, there was much bulging, extending over the right side as far as the crest of the ilium. Sixty-two ounces of a yellowish-brown, partly viscid, fluid were withdrawn by an aspirator, with great relief. The fæces still remained pale, but, five days later, there was a copious evacuation per rectum of fluid similar to that aspirated; and, except on one day in which there was a rigor with pyrexia, the patient made a rapid and uninterrupted recovery. The fluid contained a sediment consisting mostly of cholesterine and bile-pigment.

Perforating Ulcer of Foot.

Of late we have several times called attention to this condition, and now we note that Mr. C. Atkin read a paper on this subject before the Sheffield Medical Society, and drew attention to the peculiar deformity of

the toes met with in some instances, a condition originally described by Mr. Bigg and Mr. S. Jones. A man was shown suffering from well marked ataxy, whose toes were not only very much shortened and twisted, but were in parts ankylosed. The existence of this peculiar condition, and the fact that perforating ulcer was often a premonitory symptom of locomotor ataxy, had been strangely overlooked in several recent text-books on medicine and surgery. The case shown, taken in conjunction with two instances of Charcot's joint disease exhibited last year, proved that perforating ulcer could undergo spontaneous cure, as all three cases presented several scars of previous ulcers. Mr. Atkin considered that this fact ought to make surgeons very chary of advocating such serious operations as removal of bone or amputation of the foot.

Manure-heaps and Diphtheria.

M. Ferraud, in an article published in *Lyon Médical* for March, traces some relation between manure-heaps and epidemics of diphtheria, a disease more frequent in rural districts than in towns and cities. Statistics in Scotland and Prussia show that the rate of mortality from diphtheria is highest in rural districts. In Lyons, the outskirts and surrounding country suffer most. Manure-heaps do not exist in the urban districts, but are plentiful in the suburbs and adjacent country. These heaps consist of various obnoxious and infectious kinds of residue. Klebs, of Zurich, has observed the deadly influence of these manure heaps. He states that diphtheria, on one occasion, appeared on the day following a general street-cleaning. It may safely be concluded that the accumulations of dirt and refuse, known as manure-heaps, are formidable factors in the etiology of diseases among rural populations. M. Ferraud urges that the authorities in agricultural districts should enlighten the peasants on this subject. Manure should be kept in closed wells made of stone and glazed with bitumen, so constructed that all fluid filters away from the solid matter.

Protection from Phthisis.

The Conseil d'Hygiène et de Salubrité of Paris, at a recent meeting, adopted the following decisions: As the sputum of tuberculous patients contains the most active agent of transmission of tuberculosis, it ought not to be thrown on the floor or ground, nor allowed to cling to linen. Patients should use spittoons containing sawdust, which should be emptied at least once a day, and washed with boiling water. The sawdust should be burnt in the fire. These rules should be rigorously observed in schools, workshops, barracks, and hospitals. When a hired room has been inhabited a long time by a phthisical patient, it should be disinfected, more especially if death occur. The room, bed, and bedding should be disinfected by sulphur, according to preceding directions issued by the Conseil. The clothes of phthisical patients should not be used, until they have been washed and disinfected by overheated steam.

Cholesterine in Retina.

To the Sheffield Medical Society, Mr. Snell introduced a boy, aged 10, with cholesterine in the retina. He had been observed to be blind at two years of age. Now there was detached retina, which was much thickened at all parts, but especially so at the nasal side (right eye), where even the naked eye detected the glistening cholesterine plates, which were rendered very distinct with focal illumination or the mirror. The plates were clearly fixed in the retina, which appeared a little wavy at parts. Mr. Snell remarked on the unusual condition, and said that cholesterine had been found in most parts of the eye.

Brass-founder's Ague.

In a foreign exchange Dr. Suckling relates the case of a man who had worked in brass for twenty-six years. The casting-shop was immediately under the room in which the man worked; and whenever any casting was done, the dense fumes given off always made him ill, causing shivering and sweating, very frequently also vomiting, pains about the chest and limbs, and bronchial catarrh. The man had a well marked green line on the teeth, close to the gums, and his hair was of a greenish tint. Dr. Suckling met with the disease very frequently among the out-patients of the Queen's Hospital, and he found that iodide of potassium gave relief.

Rupture of Liver and Kidney.

In the *Brit. Med. Jour.*, March 27, Mr. Haslam relates a case of ruptured liver and right kidney, due to a kick on the abdomen from a horse. The patient, a man aged 29, had no symptoms indicative of a serious lesion until after five days; he was then seized with shock and collapse, his abdomen became distended, and there was suppression of urine.

He died after twenty hours. At the post-mortem examination, about half a pint of blood was found in the peritoneal cavity; this probably came from the damaged under-surface of the liver.

Lead-Tremor.

To the Midland Medical Society Dr. Suckling showed a man, a lapidary, who had suffered for years at times from lead colic. A week before coming to the hospital, he noticed trembling of the hands, which came on somewhat suddenly, and obliged him to give up work. There was marked rhythmical tremor of the hands and forearms on extension, ceasing during rest: also wasting of the thenar muscles, and some weakness of the extensors of the wrist. There was a well marked blue line on the gums.

CORRESPONDENCE.

On "Emission of Semen as a Means of Diagnosis of Death by Hanging."

EDS. MED. AND SURG. REPORTER:

With no desire to have my name paraded frequently in the journals, still, it seems to me wrong to allow the statement, or insinuation, that there is an ejaculation of semen in every case of death by hanging, as the literary history of the subject will not bear out such a statement.

Twenty-six years ago I had much to do with the conviction and hanging of a notorious murderer. At that time I was well aware that some authorities spoke of such a discharge as an evidence of death, and I took special pains to investigate the matter.

When death had taken place, as I was the one selected by the sheriff to decide the matter, and before the body had been taken down, I made a careful examination of the urethra and found *not the slightest evidence of any discharge* whatever.

I also examined the parts afterwards, with the same negative result.

Klein (*Jour. de Med. prat. de Hufeland*, 1815,) speaks of this symptom as an evidence of death by hanging thus: "I did not perceive the semi-erect condition of the penis and emission of semen in any of the cases examined."

Beatty says, in *some* cases examined by him he found them wanting. "But as erection and emission are not constantly found in hanged persons, we cannot accord to this phenomenon much value as an indication of death by strangulation, unless accompanied with other characteristic signs, for it has been found in other forms of violent death."

Somewhere I remember to have read (and I regret that I cannot now turn to the authority) that at the hanging of fourteen criminals there was observed a *discharge of urine in five*, and a secretion which, upon careful examination, proved to be *prostatic*, in nine.

In 1839, at Lancaster, in your State, a man was executed, from whose penis there was ejected a fluid, which, after being scientifically examined, proved to be *mucus*.

So that I think we cannot depend upon this seminal discharge as any evidence of death by hanging unless strongly corroborated.

D. COLVIN, M. D.

Clyde, N. Y., March 29, 1886.

Treatment of Rhus Poisoning.

EDS. MED. AND SURG. REPORTER:

I would say in reply to C. E. D., that the treatment which I always adopt, and have never known to fail, is as follows:

℞.	Hyposulphite soda,	℥j.
	Aquæ distil.,	℥viij.
	Carbolic acid,	℥iss.
	Glycerine,	℥ss. M.

Shake well, and use as a wash three or four times a day, or as often as necessary.

At the same time that I order the wash I prescribe for internal use:

℞.	Iodide potassium,	℥ij.
	Aquæ distil.,	℥vij.
	Syrup,	℥j. M.

Sig.—Dose, a tablespoonful four times a day (after eating and at bedtime).

I consider the internal use of the iodide of potassium of great benefit in the treatment of rhus poisoning, and these prescriptions usually promptly cure my patients without the necessity of repeating them. It is said that the rhus owes its poisonous properties to an acid which it contains, and this external and internal alkaline treatment neutralizes that acid, according to my experience.

J. B. JOHNSON, M. D.

Washington City, D. C.

Neuralgia Cured with Cocaine.

EDS. MED. AND SURG. REPORTER:

During September, 1885, Mr. Y——, a commercial traveler, came to my office suffering with neuralgia affecting the nerves supplying the temporal and orbital regions. He informed me that he had been subject to attacks of it more or less frequently for twenty years, and for the last few years he

had hardly known what it was to be free from pain, which was often so intense that he was obliged to resort to the inhalation of chloroform for relief. As he was at this time suffering intensely, I suggested the use of cocaine hypodermically for the purpose of rendering temporary relief. To this he readily assented, and two-thirds of a grain was injected midway between the external canthus and the ear on the affected side.

Relief was obtained in a few minutes, and up to this time he has never had a symptom of the old trouble.

I may add that his profound gratitude for deliverance from this life of torture prompted him, in addition to paying the usual office fee, to send me an *eighty-five cent keg of mackerel.* "Such are the rewards of a noble profession." C. S. McClain, M. D.

Marionville, Mo., March 23d, 1886.

News and Miscellany.

London Dust.

Mr. Millar, the vestry clerk to St. George the Martyr, Southwark, has proposed to Sir Robert Rawlinson a comprehensive scheme for dealing with the dust and refuse of the metropolis. His suggestion is to reclaim the useless land from Tilbury to Southbend by removing to it all the refuse of London. The government for this purpose would have to engage wharves along the river which would be used as shoots by the various vestries and district boards, whence the dust would be conveyed to its destination by small tugs and barges. The cost of conveyance to Tilbury he proposes should be paid by a metropolitan rate, and the cost of reclaiming the land by the government. Mr. Millar's scheme will certainly commend itself to these who regard this subject from the public health point of view, but it could not be carried out without interference with certain industries. Brickmakers would argue that the present system which is carried on in London dust-yards is necessary for the purpose of enabling them to manufacture bricks for the growth of London. Farmers have learned to depend upon London road-sweepings and "soft core" for manure; and last, but not least, contractors have learned to make sufficient profits out of London dust to make their influence felt by local authorities. But this industry is less remunerative than formerly, and as a result there is often a tendency on the part of the contractor to leave the dust in dust-bins rather than devote it to the uses we have indicated. Hence, there has for some time been a growing feeling that some radical change was necessary in the method of dealing with the waste material of this large city. Efforts have been made by more than one metropolitan medical officer of health to bring to the notice of his sanitary authority the advantages of burning house refuse in some such manner as that practiced in the north of England. Vestries have been taught continually that they must learn to think of dust-removal in its health rather than its economic relations. But the influence of the contractor and the force of custom have always stood in the way of any alteration of procedure. Mr. Millar's scheme will, we hope, revive the whole subject. Subject to regular removal from houses, the money cost of dealing with refuse is an important consideration, and it is obvious that every effort would be made to utilize the material in some way that would make as much return as possible for the money expended in its collection. Mr. Millar calculates that the metropolis now pays £120,000 annually for this purpose. If his scheme be such as to cost no more than this, it is even then worthy of consideration, for the removal from houses would not then be dependent, as now, upon the requirements of the brickmaker or the farmer.

Explosive Drugs.

The *Cinn. Lancet and Clinic* says it is well known that the manipulation of certain pharmaceutical remedies or their preparation, may through ignorance or carelessness give rise to explosions which, if they do nothing more, are calculated to make the manipulator seriously consider the desirability of changing his occupation. The list of them is rather formidable, and we may be doing a good service in bringing a few of them to the notice of the profession, the members of which have quite enough worries of their own to enable them to dispense with any unnecessary and avoidable sources of excitement.

Without alluding to the elementary precautions to be employed in the manufacture and dispensing of nitro-glycerine, the now fashionable remedy, thanks to the advocacy of Dr. Murrell, we may call attention to the liability of mixtures of chlorate of potash and sulphur to explode on percussion or attrition. This is a constantly recurring accident, and yet it is one known to every schoolboy. Further, a mixture of chlorate of potash and caoutchouc has been known to explode when used as a tooth-powder. Not

long since, the fall of a bottle of lycopodium in a chemist's shop at Strasburg was followed by an explosion, as a result of the highly inflammable powder taking fire at the gas-jet. Elsewhere a druggist who was engaged in drying some hypophosphite of calcium over a sand-bath was killed by the explosion. Oxalate and citrate of calcium are also liable to explode at a high temperature. Permanganate of potassium in combination with any organic substance is apt to explode spontaneously, and a mixture of chlorate of potassium, chloride of iron, and glycerine, has exploded in the pocket of the patient who carried it. A chemist at Paris prepared ozone with powders composed of equal parts of peroxide of manganese, permanganate of potassium, and powdered oxalic acid. Every precaution was taken, but the powders had not long been mixed before the bottle containing them was blown to atoms.

Quite recently a medical man wrote a doleful letter to a contemporary narrating his experience when endeavoring to manufacture terbene by acting on oil of turpentine with pure sulphuric acid. An explosion followed, and although, owing to his having taken care to envelop the bottle in a towel, nothing worse happened than serious damage to a new pair of trousers, he thought it his duty to warn others against this particular experiment.

Iodine, treated with ammonia, forms when dry a compound possessing violent detonating qualities, which has several times proved fatal.

Staining Wood.

On staining wood a writer in an exchange gives the following directions:

A good mahogany color can be had by dissolving maroon lake in water, adding a piece of potash about as large as a walnut to a quart of water, plenty of the color. This will give a good mahogany imitation on any wood, and can be used to darken the mahogany if so desired. Oak or ash may be stained brown by using linseed oil and benzine half and half, and burnt umber or Vandyke brown incorporated with this. Maple can be stained green grey by using copperas in water; oak will also be changed to a dark green blue through the same agency, the effect on ash being various shades of olive green. Ammonia applied to oak produces the bronze olive tint now used so much by architects. Staining by the fumes of ammonia results in all shades from light olive to the rich deep brown of extreme age. This method is considered the best for imparting to oak or mahogany the appearance of age; and for those wishing to avail themselves of an easy, clean, and certain means of gaining the result, fumigating offers no serious obstacle to its accomplishment, the articles necessary being easy of acquirement and at small expense.

Procure for your use a box sufficiently large to receive the article; any well-made packing box will be suitable, providing the joints or seams are close. Next get some strong full-strength liquid ammonia, not the diluted article of the druggist, pour some in a shallow receptacle—such, for instance, as a deep plate; place this in the bottom of the box, so that the fumes will rise and surround the object to be stained; close the box securely, so that the fumes will be confined as much as possible. When the article is small, of course the box need not be large—the smaller the better, for then you will not require so much ammonia. You can see how the staining progresses by wetting a portion from time to time; otherwise the change of color would not be perceptible. All that is now necessary is to leave the ammonia to do the work, remembering that the longer the exposure the darker the hue will be.

Mortality in the State of New York.

The total number of deaths during 1885, in the State of New York, was 80,407, of which 30,027 (or 37.3 per cent.) were of children under five years of age. The ratio per 1,000 of deaths from all zymotic diseases to the total mortality was 222.17, against 269.12 for nine months of 1884. This diminution was largely in typhoid fever and the diarrhœal diseases; the conjoined ratio per 1,000 from these diseases being 104.07, against 146.40 in 1884. As these are especially controlled by the public hygienic improvements, this indicates the efficiency of the sanitary work that has been done, and is emphasized by the ratio of diphtheria, which depends largely upon domiciliary conditions; namely, 56.06 per 1,000 total deaths in 1885, and 47.65 in 1884. These three typify the filth-diseases. There was no material change in the other zymotic diseases. Estimating the present population of the State at 5,400,000, an annual death-rate of 20 per 1,000 would give 108,000 total mortality. The reported mortality, with about 3,000 death-reports received after the bulletin is issued, and the mortality of Buffalo, account for about 88,000 deaths. During the year, about

5,000 more deaths were reported than in 1884, indicating that more local boards are organized, and that the returns are more complete.

Infantile Menstruation.

The *Semaine Médicale* publishes the history of a case, observed by Dr. Mengus, of a little girl of 23 months who menstruated regularly. The child was well formed and fully developed for her age. The menstrual flux proceeded from the genital organs; there was neither lesion, neoplasm, nor a foreign body to explain this. The hymeneal membrane was absent; examination could extend to the cervix uteri, which was excessively developed for a child of that age. After three days the catamenial flow stopped, and reappeared three weeks later on. The child presented signs of puberty, which increased after the second menstruation; the breasts were as developed as in the mobile period; the pelvis presented the signs of commencing puberty, and the skin lost the satin-like surface peculiar to children, and presented the rougher one characteristic of puberty in young girls; loss of blood weakened the child at first, but a few tonics restored her normal condition; she continued to menstruate regularly and have perfect health; she is now three years and a half old, precocious and intelligent, and measures 1.15 mètres in height, the stature of a child of seven. Her brother presents all the symptoms of cretinism.

Daltonism Amongst French Railway Officials.

Dr. Worms, medical officer to the Chemin de Fer du Nord, has recently published a report, and presented it to the Academy of Medicine. Among 1,173 railway officials whom he examined, in 224 the visual power for colors was imperfect, independent of any other lesion; 118 hesitated in distinguishing the different colors, 41 distinguished red easily, but confounded green, blue, and gray; 4 were perfectly color-blind; 63 confounded red, green, and gray. Those who presented an alteration of chromatic power sufficient to prevent clear distinction of signals, were not entrusted with the care of a train. The examination of railway servants before they are employed by the company, excludes men with Daltonism from being employed in running the trains. Dr. Worms states that the proportion of color-blind subjects was 5 per cent. Many others, however, did not distinguish colors clearly. These officials had been submitted to an examination previous to that made by Dr. Worms, who suggests that color-exercises should be included in public instruction.

Antiseptic Surgery.

In an able paper on this subject, recently read before the New York Academy of Medicine, Dr. Stephen Smith says:

"Cleanliness is the one great object sought to be attained in all operations. Whatever may be the final conclusion of scientific students as to the cause of putrefaction in wounds, practically it is determined that the surgeon may, with the most absolute certainty, protect an ordinary open wound from suppuration. To effect this object, he finds that he has simply to resort to those measures which are known to secure perfect cleanliness of the wound. The agents now relied upon and found efficient are:

"1. Soap and water to external parts.

"2. Carbolic solutions for the instruments.

"3. Bichloride solutions to all surfaces and tissues.

"4. Iodoform for external dressings.

"We may summarize the conditions regarded as essential to success as follows: that is, *a clean opeyator, clean assistants, a clean patient, clean instruments, clean dressings.*"

A Strange Disease.

According to the medical man who writes in the Chinese consular reports, near Changehow, "there is a form of hysterical disease or mania among adult males. The patient acquires the impression that his abdomen is inhabited by some animal, often a rat, whose excursions cause violent pain. Unheard-of efforts are made to expel the intruder, and often the savings of a whole family for a lifetime are wasted away on bonzes, sorcerers, and other quacks, in hope of obtaining relief for the sufferer. It is reported that in many cases death occurs from suffocation in the course of a violent convulsive paroxysm. The patient leads a double life, marked by the use of two voices of different timbres. As a rule his disposition alters in correspondence with the change of voice. Morally and mentally he is a different being in the two states. Whatever occurs during the period betokened by the unnatural voice is totally forgotten during the normal period."

Gonorrhœa in the Family.

M. P. Aubert contributes some facts to the *Lyon Médical* which show that gonorrhœa introduced into a family by the erring

husband may affect not only the wife, but children. Mme. X—— sent to him her little daughter, aged four, suffering from "whites," and Dr. Aubert found that she had gonorrhœa, with numerous gonococci in the secretions. The mother had herself suffered from excessive leucorrhœal discharge for several days, and she stated that her husband had had a discharge for some weeks. The family attributed it all, says Dr. Aubert, to some bad wine which had been used. In a second instance, father, mother, and little girl, all had the gonorrhœa. Here it was established that the mother, while suffering from the discharge, twice took her daughter into the bath with her. It was thought that the contagion came in this way.

Misfortune to the Graduates of the Jefferson Medical College.

After the college commencement, which was held on April 2, the Faculty gave a banquet to the newly-made doctors at Natatorium Hall. A temporary floor had been placed over the basin fixed for swimming in the west end of the room. On the temporary floor stood a piano, around which a number of doctors were standing. Suddenly the floor gave way, and about twenty-five of the party fell with the piano and the débris to the bottom of the basin, a distance of twenty feet. Three persons were seriously hurt, but there was no fatal injury.

Polygonum Aviculare.

Dr. Roschtschinin, of St. Petersburg, at the late Congress of Russian Physicians, spoke highly of the value of Polygonum aviculare (L.) in bronchial catarrh and asthma. According to the investigations of Werner, the plant contained considerable quantities of an alkaloid. The speaker employs an infusion of the plant, 30 grm. pro litre, of which a glassful was to be taken thrice daily with milk, kefir, or sweetened water. Chronic bronchial catarrhs were said to disappear in from 10 to 30 days. It was also useful in whooping-cough, but of no service in phthisis, although it was largely used as a vulgar remedy for the disease in Russia.

A Curious Trial.

A singular case has just been decided by the Paris Civil Tribunal. Dr. Peyrol, head surgeon at the Hôtel-Dieu, claimed 800 francs for extracting a bullet from Mme de Beauregard, who had accidentally shot herself. The claim was disputed on the ground that the plaintiff stated erroneously that the bullet was lodged in the right thigh, besides which, she had been attended by two other medical men. The tribunal overruled the plea, believing that it mattered very little whether the bullet was on the right or the left side, so long as the patient's sufferings had been relieved; and the medical man therefore won his suit.

Items.

—Bronzes, or more correctly, metallic powders resembling gold dust, were invented in 1648, by a monk, at Furth, in Bavaria. He took the scraps or cuttings of the metallic leaves, then known as Dutch leaf, and ground them with honey. This roughly-made bronze powder was used for ornamenting parchments, capital letters in Bibles, choral books, etc.

—It is said that there are at present at the various German universities no fewer than 157 professors between the ages of seventy and ninety. Of these, 122 deliver their lectures as usual. The oldest is the veteran Von Ranke, the historian, who is now in his ninetieth year, but is not considered fully equal in vigor, memory, and other faculties, to Professor Elvenich, who is thirty-nine days his junior.

—"I say, doctor," said a citizen, "do you know how Jim Bullard is getting on since he left town?"

"Jim was shot and killed, poor fellow, only last week."

"Is it possible!" exclaimed the shocked citizen; "where was he shot?"

"In the lumbar region, I believe."

"In the lumber region? Why, I understood that Jim had gone to the oil region."

—A woman once consulted Abernethy for an ulcer on her arm, and when asked, "What ails you?" exhibited the sore without speaking. "Poultice it, and take five grains of blue mass every night; come back in a week!" The woman offered the usual fee, which the surgeon refused. At the end of the week the patient appeared, and the same pantomime occurred. After a few more visits, the doctor looked at the arm and pronounced it well. The patient again offered a fee. "No," said Abernethy, "I will take nothing. You are the most sensible woman I ever met. *You don't talk!*" A few months afterwards he discovered that the woman was *dumb*.

MARRIAGE.

KELLEY—HINDS.—April 1, 1886, at Lynchburg, S. C., Dr. Thomas R. Kelley and Clara, daughter of Mr. William Hinds.